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Terms	Documents
L7 and radionuclide	107

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DATE: Friday, October 18, 2002 Printable Copy Create Case

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DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=AND			
L11	L7 and radionuclide	107	L11
L10	L7 and radionulide	0	L10
L9	L7 and readionulide	0	L9
L8	L7 and ferrite	1	L8
L7	L6 and l1	206	L7
L6	L5 and (cancer or tumor)	2373	L6
L5	L4 and l2	2477	L5
L4	antibody	131719	L4
L3	tissue adj glue	166	L3
L2	radiotherap$	6617	L2
L1	fibrinogen	9610	L1

END OF SEARCH HISTORY

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 NEWS  4  Apr 09  ZDB will be removed from STN
 NEWS  5  Apr 19  US Patent Applications available in IFICDB, IFIPAT, and
IFIUDB
 NEWS  6  Apr 22  Records from IP.com available in CAPLUS, HCAPLUS, and
ZCAPLUS
 NEWS  7  Apr 22  BIOSIS Gene Names now available in TOXCENTER
 NEWS  8  Apr 22  Federal Research in Progress (FEDRIP) now available
 NEWS  9  Jun 03  New e-mail delivery for search results now available
 NEWS 10  Jun 10  MEDLINE Reload
 NEWS 11  Jun 10  PCTFULL has been reloaded
 NEWS 12  Jul 02  FOREGE no longer contains STANDARDS file segment
 NEWS 13  Jul 22  USAN to be reloaded July 28, 2002;
                  saved answer sets no longer valid
 NEWS 14  Jul 29  Enhanced polymer searching in REGISTRY
 NEWS 15  Jul 30  NETFIRST to be removed from STN
 NEWS 16  Aug 08  CANCERLIT reload
 NEWS 17  Aug 08  PHARMAMarketLetter(PHARMAML) - new on STN
 NEWS 18  Aug 08  NTIS has been reloaded and enhanced
 NEWS 19  Aug 19  Aquatic Toxicity Information Retrieval (AQUIRE)
                  now available on STN
 NEWS 20  Aug 19  IFIPAT, IFICDB, and IFIUDB have been reloaded
 NEWS 21  Aug 19  The MEDLINE file segment of TOXCENTER has been reloaded
 NEWS 22  Aug 26  Sequence searching in REGISTRY enhanced
 NEWS 23  Sep 03  JAPIO has been reloaded and enhanced
 NEWS 24  Sep 16  Experimental properties added to the REGISTRY file
 NEWS 25  Sep 16  Indexing added to some pre-1967 records in CA/CAPLUS
 NEWS 26  Sep 16  CA Section Thesaurus available in CAPLUS and CA
 NEWS 27  Oct 01  CASREACT Enriched with Reactions from 1907 to 1985

 NEWS EXPRESS  October 14 CURRENT WINDOWS VERSION IS V6.01,
               CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
               AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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FILE 'HOME' ENTERED AT 10:56:17 ON 18 OCT 2002

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FILE 'MEDLINE' ENTERED AT 10:56:31 ON 18 OCT 2002

=> s ferrite
L1         66085 FERRITE

=> s radiotherap?
L2        152122 RADIOTHERAP?

=> s l1 and l2
L3             9 L1 AND L2

=> duplicate remove l3
DUPLICATE PREFERENCE IS 'CAPLUS, MEDLINE'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L3
L4             9 DUPLICATE REMOVE L3 (0 DUPLICATES REMOVED)

=> d ibib abs 1-9

L4   ANSWER 1 OF 9  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2001:707642  CAPLUS
DOCUMENT NUMBER:          135:235032
TITLE:                    Process for obtaining a product for emission of
                          piezoelectric photons for maintenance of health
INVENTOR(S):              Viana, Hilton Lima; Bitencourt, Antonio Hilario;
                          Paiva, Augusto Dias
PATENT ASSIGNEE(S):       Nipobrasileira Industria Comercio Exportacao e
                          Importacao Ltda, Brazil
SOURCE:                   Braz. Pedido PI, 6 pp.
                          CODEN: BPXXDX
DOCUMENT TYPE:            Patent
LANGUAGE:                 Portuguese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.   DATE
     ---------------   ----  --------       ---------------   --------
     BR 9805762         A    20000627       BR 1998-5762      19981207
AB   Schorlite is reduced to powder and combined with other elements (alumina
     and ceramics) initially, and then, after being combined in certain
     proportions and formed into pastilles 14 X 6 X 2 mm in size, is placed in
     a ferrite magnet of about 750 G.  Photons produced by this
     system are intended for maintenance of health.
```

L4 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:180010 CAPLUS
DOCUMENT NUMBER: 130:317689
TITLE: A compact proton accelerator system for cancer therapy
AUTHOR(S): Yamaguchi, A.; Nakayama, K.; Rizawa, T.; Sukenobu, S.; Satoh, K.; Morii, Y.; Tanabe, Y.; Chiba, Y.
CORPORATE SOURCE: Toshiba Corporation, Yokohama, 230, Japan
SOURCE: Proceedings of the Particle Accelerator Conference, 17th, Vancouver, B. C., May 12-16, 1997 (1998), Meeting Date 1997, Volume 3, 3828-3830. Editor(s): Comyn, M. Institute of Electrical and Electronics Engineers: New York, N. Y.
CODEN: 67JLAX
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The basic design of a compact proton accelerator system for cancer therapy is described. The system consists of a 30 keV ion source, a 3 MeV RFQ linac, and a rapid-cycling 235 MeV synchrotron. A strong focusing combined function magnet, which has both focusing and defocusing section in a unit, is adopted instead of a quadrupole magnet. The rf system applies a compact **ferrite** loaded tuning-free cavity which has no bias windings. The synchrotron is operated at 20 Hz repetition with fast beam extn. It is the same method as the KEK booster synchrotron, which has been using for proton therapy studies by Tsukuba University. In this system, a breath synchronized irradn. method is easily realized and the energy of proton beam can be changed flexibly within few minutes.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:767385 CAPLUS
DOCUMENT NUMBER: 128:120566
TITLE: An untuned RF cavity using multifeed coupling
AUTHOR(S): Saito, K.; Hirota, J. I.; Katane, M.; Tadokoro, M.; Iwashita, Y.; Noda, A.; Inoue, M.
CORPORATE SOURCE: Hitachi-shi, Hitachi Research Laboratory, The First Department of Energy System Research, Nuclear Fusion and Accelerators Group, Hitachi Ltd.Omika, Ibaraki-ken, 319-12, 7-1-1, Japan
SOURCE: Nuclear Instruments & Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors, and Associated Equipment (1997), 401(1), 133-143
CODEN: NIMAER; ISSN: 0168-9002
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A **ferrite**-loaded untuned RF cavity was designed and fabricated as the accelerating structure for a compact p synchrotron dedicated to cancer therapy. An invented power-feeding method, multifeed coupling, was used to achieve a gap voltage >700 V with an applied RF power of 1.2 kW in the frequency range 1.5-8 MHz and a cavity length 0.4 m. The temp. in the **ferrite** cores had less than a 22.degree. rise from room temp.

using only forced air cooling.

L4 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:601829 CAPLUS
DOCUMENT NUMBER: 125:230859
TITLE: Compositions comprising a tissue glue and therapeutic agents
INVENTOR(S): Filler, Aaron Gershon; Lever, Andrew Michael Lindsay
PATENT ASSIGNEE(S): Syngenix Limited, UK
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9603112	A1	19960208	WO 1995-GB1330	19950607
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 804153	A1	19971105	EP 1995-921073	19950607
R: DE, FR, GB				
US 5948384	A	19990907	US 1995-473697	19950607

PRIORITY APPLN. INFO.:

US 1993-988919	A2	19930504
GB 1994-14684	A	19940721
GB 1994-15405	A	19940725
GB 1995-2246	A	19950206
GB 1995-3357	A	19950221
GB 1990-20075	A	19900914
GB 1990-23580	A	19901030
GB 1990-27293	A	19901217
GB 1991-233	A	19910107
GB 1991-981	A	19910116
GB 1991-2146	A	19910131
GB 1991-10876	A	19910520
GB 1991-16373	A	19910730
GB 1991-17851	A	19910819
GB 1991-18676	A	19910830
WO 1995-GB1330	W	19950607

AB The title compns. are used for percutaneous or surgical application of therapeutic agents which are intended to remain at or near the location, esp. for local **radiotherapy**. A .beta.-emitting **ferrite** or other **radiotherapeutic** agent in particulate form is suspended in a tissue glue. FeCl3.cntdot.6H2O was dissolved into a soln. contg. dextran in ddH2O. The reaction product was spun to obtain a supernatant, which was applied to PD-10 columns. The black eluted fraction was used with a tissue glue.

L4 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:362307 CAPLUS
DOCUMENT NUMBER: 125:97796
TITLE: Study on a tuning-free network for the rf accelerating cavity
AUTHOR(S): Sato, K.; Rizawa, T.; Saito, T.; Tamura, H.; Uraki, M.; Yamamoto, M.; Morii, Y.; Hosono, K.; Hatanaka, K.; et al.
CORPORATE SOURCE: Research Center for Nuclear Physics, Osaka University,

10-1, Mihogaoka, Ibaraki-shi, Osaka, 567, Japan
SOURCE: Nuclear Instruments & Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms (1996), 113(1-4, Accelerators in Applied Research and Technology), 42-45
CODEN: NIMBEU; ISSN: 0168-583X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Applying a bridged-T type all-pass network to a resonator described as a parallel circuit, the output voltage of the resonator shows a band-pass feature over a certain frequency range, while the input impedance is always const. against frequency. This feature is considered to realize the **ferrite**-loaded tuning-free rf accelerating cavity. It has several merits such as a simple cavity structure without bias windings, an easy operation without feedback control of the bias current, applying new **ferrite** with favorable rf characteristics and so on. The accelerating system is applicable to a proton-synchrotron for **radiotherapy** or a cooler-synchrotron for nuclear physics studies in a multi-GeV region. This paper presents a theory of the system, the characteristics of the new **ferrite**, which is currently developed, and design studies of the network based on preliminary measurements of an equiv. lumped circuit.

L4 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:742500 CAPLUS
DOCUMENT NUMBER: 123:181158
TITLE: A compact proton synchrotron with a combined function lattice dedicated for medical use
AUTHOR(S): Hiramoto, Kazuo; Hirota, Junichi; Norimine, Tetsurou; Nishi, Masatsugu; Katane, Mamoru; Sakurabata, Hiroaki; Noda, Akira; Iwashita, Yoshihisa; Inoue, Makoto
CORPORATE SOURCE: Inst. Chem. Res., Kyoto Univ., Kyoto, 611, Japan
SOURCE: Bulletin of the Institute for Chemical Research, Kyoto University (1995), 73(1), 11-18
CODEN: BICRAS; ISSN: 0023-6071
PUBLISHER: Kyoto University, Institute for Chemical Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A proton synchrotron for cancer therapy is presented. A combined function lattice is employed to reduce the size of the synchrotron and make control simple. The synchrotron employs an RF acceleration cavity of untuned type, in which higher RF voltage is applied to the acceleration gap with a rather low input power by feeding the RF power to each **ferrite**, resp. In beam extn., the transverse perturbation of the radio-frequency is applied to make the beam diffuse and reach the separatrix of the nonlinear resonance. This scheme realizes a simple and low emittance beam extn. with a high duty factor.

L4 ANSWER 7 OF 9 MEDLINE
ACCESSION NUMBER: 93018178 MEDLINE
DOCUMENT NUMBER: 93018178 PubMed ID: 1402124
TITLE: Concurrent ferromagnetic hyperthermia and 125I brachytherapy in a rabbit choroidal melanoma model.

AUTHOR: Steeves R A; Murray T G; Moros E G; Boldt H C; Mieler W F; Paliwal B R
CORPORATE SOURCE: Department of Human Oncology, University of Wisconsin, Madison 53792.
CONTRACT NUMBER: CA 49429 (NCI)
SOURCE: INTERNATIONAL JOURNAL OF HYPERTHERMIA, (1992 Jul-Aug) 8 (4)
443-9.
Journal code: 8508395. ISSN: 0265-6736.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199211
ENTRY DATE: Entered STN: 19930122
Last Updated on STN: 19930122
Entered Medline: 19921125

AB Ferromagnetic (FM) thermoseeds and radioactive (125I) seeds were combined in an episcleral plaque to give concurrent hyperthermia and irradiation for enhanced tumour destruction. A Greene melanoma cell line was utilized to study the interaction between these treatment modalities. We attached five FM thermoseeds (with an operating temperature of 48 degrees C) in parallel with alternating rows of 125I seeds onto the inner surface of each 14 mm Silastic plaque. Plaques were centred over a 3-6 mm (diameter) intraocular melanoma in each rabbit. Some rabbits were then placed within a heating coil, and their eye tumours were warmed rapidly to therapeutic temperatures (43.6 degrees C across the tumour base) while the temperature of normal conjunctiva across the globe did not exceed 38.5 degrees C. Analysis of 49 treated eye melanomas showed 50% local tumour control at 41.7 Gy for 125I alone, whereas only 9.5 Gy were needed to give the same local control rate after 125I with concurrent FM hyperthermia. Thus, a thermal enhancement ratio of 4.4 was obtained. Hyperthermia alone gave a 20% tumour response rate, but responses were only temporary. We conclude that FM thermoseeds can be used to deliver biologically effective hyperthermia concurrently with radiation, thereby reducing the dose of radiation needed for tumour control.

L4 ANSWER 8 OF 9 MEDLINE
ACCESSION NUMBER: 90131953 MEDLINE
DOCUMENT NUMBER: 90131953 PubMed ID: 2299225
TITLE: Hyperthermia of pet animal tumours with self-regulating ferromagnetic thermoseeds.
COMMENT: Comment in: Int J Hyperthermia. 1991 Mar-Apr;7(2):395-7
AUTHOR: Brezovich I A; Lilly M B; Meredith R F; Weppelmann B; Henderson R A; Brawner W Jr; Salter M M
CORPORATE SOURCE: Department of Radiation Oncology, University of Alabama, Birmingham 35233.
CONTRACT NUMBER: CA 39041 (NCI)
CA 39042 (NCI)
SOURCE: INTERNATIONAL JOURNAL OF HYPERTHERMIA, (1990 Jan-Feb) 6 (1)
117-30.
Journal code: 8508395. ISSN: 0265-6736.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199003
ENTRY DATE: Entered STN: 19900328
Last Updated on STN: 19980206

Entered Medline: 19900305

AB Investigations with thermally self-regulating ferromagnetic implants (thermoseeds) were done on healthy rats and pet animals with spontaneous and transmissible venereal tumours (TVT). The thermoseeds were produced from a nickel-copper alloy and electroplated with a gold-silver layer. Manufacturing conditions were varied to produce thermoseeds with various operating temperatures, the critical temperature above which heating power production sharply declines. To test for toxicity, thermoseeds were implanted into the liver of rats and left in place for up to 14 months. While atomic absorption spectroscopy showed increased nickel and copper levels in tissues near the implants, no clinical evidence of ill-effects was noted. For hyperthermia treatment, thermoseeds were implanted into tumours of pet animals, and these were placed into an induction coil which produced an 89 kHz frequency, 4000 A/m amplitude field. The highest recorded tumour temperature correlated with the nominal operating point of the thermoseeds, demonstrating their ability to regulate the temperature. Of the 15 evaluable animals with spontaneous tumours treated, 12 received concomitant 60Co radiation (two of them only after tumour recurrence following an initial treatment course of hyperthermia alone). Five of those treated with both modalities experienced complete response, five responded partially and two had no change. The treatment course of hyperthermia alone resulted in one animal achieving a complete response, and in three partial responders. Animals bearing TVT had a complete local response with hyperthermia alone. Massive tissue necrosis and seed migration caused the major treatment-related toxicity. Our findings suggest that self-regulating thermoseeds offer the possibility of predictable heat delivery to defined tissue volumes, and may be useful in the treatment of human tumours which are amenable to implantation. Until migration can be controlled, clinical trials should be limited to removable implants.

L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1988:494578 CAPLUS
DOCUMENT NUMBER: 109:94578
TITLE: Pliable foamed rubber-metal composites for shielding x-rays
INVENTOR(S): Yamamoto, Keiichi
PATENT ASSIGNEE(S): Japan
SOURCE: U.S., 4 pp. Cont.-in-part of U.S. Ser. No. 674,047, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4740526	A	19880426	US 1987-44831	19870501

PRIORITY APPLN. INFO.: US 1984-674047 19841121

AB A pliable elastic foamed material, useful for x-ray shielding clothes, comprises a foam rubber matrix composed of a brine of 100 wt. parts of a 1st rubber having no.-av. mol. wt. (Mn) >100,000 and 40-45 wt. parts of a 2nd rubber having Mn 2,000 and 660-1200 phr particles or grains uniformly dispersed in the rubber blend. A compn. comprising neoprene rubber 100 Pb oxide 660, ZnO 5, MgO 3, low-mol. wt. liq. neoprene rubber 40, vulcanizing

agent 3, vulcanization accelerator 1, antioxidant 5, blowing agent 8, and Santogard PVI 0.1 wt. parts were compounded, foamed, molded, and cut into sheets showing surface hardness (ASKA-C scale) 28-30.degree., apparent sp.
gr. 1.02, and 5-mm thick sheet Pb equiv. 0.24 mm Pb.

```
=> s radioimmunotherapy
L5        2753 RADIOIMMUNOTHERAPY

=> d hist

     (FILE 'HOME' ENTERED AT 10:56:17 ON 18 OCT 2002)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 10:56:31 ON 18 OCT 2002
L1         66085 S FERRITE
L2        152122 S RADIOTHERAP?
L3             9 S L1 AND L2
L4             9 DUPLICATE REMOVE L3 (0 DUPLICATES REMOVED)
L5          2753 S RADIOIMMUNOTHERAPY

=> s l5 and l1
L6             0 L5 AND L1

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                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    26.36      26.57

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -4.34      -4.34

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L14 ANSWER 11 OF 90 MEDLINE
ACCESSION NUMBER: 86222990 MEDLINE
DOCUMENT NUMBER: 86222990
TITLE: **Radiation synovectomy** with 165Dy-FHMA: lymph node uptake and radiation dosimetry calculations.
AUTHOR: Zalutsky M R; Venkatesan P P; English R J; Shortkroff S; Sledge C B; Adelstein S J
CONTRACT NUMBER: AM 23063 (NIADDK)
SOURCE: INTERNATIONAL JOURNAL OF NUCLEAR MEDICINE AND BIOLOGY, **(1986)** 12 (6) 457-65.
Journal code: GS5. ISSN: 0047-0740.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198609

AB The lymph node uptake of 165Dy was measured in 25 patients treated by **radiation synovectomy** via intra-articular injection of 165Dy-ferric hydroxide macroaggregates (FHMA). An average of 0.12% of the injected dose was found in the inguinal lymph nodes 19h post injection. This results in a lymph node of 16.6 rad (166 mGy), a dose significantly less than that reported following **radiation synovectomy** with other radiocolloids. Dosimetry calculations for the intra-articular injection of 165Dy-FHMA are provided in the appendix.

L14 ANSWER 8 OF 90 MEDLINE
ACCESSION NUMBER: 88251513 MEDLINE
DOCUMENT NUMBER: 88251513
TITLE: Repeat **radiation synovectomy** with dysprosium 165-ferric hydroxide macroaggregates in rheumatoid knees unresponsive to initial injection.
AUTHOR: Vella M; Zuckerman J D; Shortkroff S; Venkatesan P; Sledge C B
CORPORATE SOURCE: Department of Orthopaedic Surgery, Brigham and Women's Hospital, Boston, Massachusetts..
SOURCE: ARTHRITIS AND RHEUMATISM, **(1988 Jun)** 31 (6) 789-92.
Journal code: 90M. ISSN: 0004-3591.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 198809

AB Because of failure to fully respond to an initial intraarticular injection of dysprosium 165-ferric hydroxide macroaggregates, 17 patients with seropositive rheumatoid arthritis underwent repeat **radiation synovectomy** using this agent. Of the 13 patients who were evaluated 1 year later, 54% (7 knees) had good results, 31% (4 knees) had fair results, and 15% (2 knees) had poor results. The initial lack of significant benefit from **radiation synovectomy** did not appear to preclude a favorable response to a second injection.

L11 ANSWER 10 OF 17 MEDLINE
ACCESSION NUMBER: 84224870 MEDLINE
DOCUMENT NUMBER: 84224870
TITLE: [**Radiotherapy** of arteriovenous malformations of the brain].
Die **Radiotherapie** arteriovenoser Malformationen des Hirnes.
AUTHOR: Makoski H B; Nocken U; Fiebach B J; Zeilstra D
SOURCE: STRAHLENTHERAPIE, (1984 Mar) 160 (3) 159-65.
Journal code: V1Z. ISSN: 0039-2073.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: German
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 198409
AB **Arterio-venous malformations** of the brain are accompanied by a risk of hemorrhages which increases in the course of time. Thus a therapy is indicated as soon as the **arterio-venous malformation** is discovered. If surgical treatment is contra-indicated, **radiotherapy** can be applied with a high rate of success (obliteration of the **arterio-venous malformation** after two years in up to 88% of cases). Percutaneous **radiotherapy** has to be performed with a stereotaxic technique under controlled conditions. The stipulations for this treatment are described on the basis of our own method. Between August 1982 and July 1983, twenty patients have been treated without any complications due to therapy or to the disease. This form of **radiotherapy** using the bremsstrahlung of a linear accelerator can be considered as an alternative method with respect to proton irradiation.

US

ANSWER 1 OF 1 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1992:456076 CAPLUS
DOCUMENT NUMBER: 117:56076
TITLE: Particulate agents for diagnosis or therapeutics or prophylaxis
INVENTOR(S): Filler, Aaron Gershon
PATENT ASSIGNEE(S): St. George's Enterprises Ltd., UK
SOURCE: PCT Int. Appl., 130 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: A61K047-48
SECONDARY: A61K049-00
CLASSIFICATION: 63-8 (Pharmaceuticals)
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9204916	A2	19920402	WO 1991-EP1780	19910913 <--
WO 9204916	A3	19920820		
W: AU, CA, JP, NO, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
AU 9185142	A1	19920415	AU 1991-85142	19910913
EP 548157	A1	19930630	EP 1991-916129	19910913
EP 548157	B1	19980520		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 166233	E	19980615	AT 1991-916129	19910913
EP 861667	A2	19980902	EP 1997-119199	19910913
R: DE, FR, GB				
CA 2099869	AA	19920708	CA 1992-2099869	19920104
US 5948384	A	19990907	US 1995-473697	19950607

PRIORITY APPLN. INFO.:

GB 1990-20075	19900914
GB 1990-23580	19901030
GB 1990-27293	19901217
GB 1991-233	19910107
GB 1991-981	19910116
GB 1991-2146	19910131
GB 1991-10876	19910520
GB 1991-16373	19910730
GB 1991-17851	19910819
GB 1991-18676	19910830
EP 1991-916129	19910913
WO 1991-EP1780	19910913
US 1993-988919	19930405

ABSTRACT:
A means of pharmaceutical delivery for therapy or prophylaxis or to assist surgical or diagnostic operations on the living body is provided by neuronal endocytosis and axonal transport following pharmaceutical administration into vascularized, peripherally innervated tissue, e.g., i.m. injections of a nerve adhesion mol. in a coupled particle comprising a physiol. active substance or a
diagnostic marker. The marked substances are metal oxides, metal sulfides or alloys with a mean particle size of 10-50 nm. Ferrite particles were prepd., coated on dextran, and conjugated to a nerve adhesion mol., e.g., a lectin or agglutinin.

SUPPL. TERM: particle nerve adhesion diagnosis therapeutics

INDEX TERM: Nerve
(adhesion substances, particles contg. metals and, for diagnosis or prophylaxis or therapeutics)

INDEX TERM: Agglutinins and Lectins
ROLE: BIOL (Biological study)
(nerve adhesion substances, particles contg. metals and, for diagnosis or prophylaxis or therapeutics)

INDEX TERM: Diagnosis
(particles contg. metals and nerve adhesion mol. for)

INDEX TERM: Ferrite substances
Spinel-group minerals
Alloys, biological studies
Oxides, biological studies
Radioelements, biological studies
Rare earth metals, biological studies
Sulfides, biological studies
ROLE: BIOL (Biological study)
(particles contg. nerve adhesion mol. and, for diagnosis or prophylaxis or therapeutics)

INDEX TERM: 9004-54-0, Dextran, biological studies
ROLE: BIOL (Biological study)
(particles contg. metal particles coated with and nerve adhesion mol., for diagnosis or prophylaxis or therapeutics)

INDEX TERM: 7440-20-2, Scandium, biological studies 14092-99-0, Manganese 52, biological studies 14093-04-0, Iron 52, biological studies 14276-61-0, Scandium 43, biological studies
ROLE: BIOL (Biological study)
(particles contg. nerve adhesion mol. and, for diagnosis or prophylaxis or therapeutics)

L13 ANSWER 1 OF 12 MEDLINE
ACCESSION NUMBER: 96279681 MEDLINE
DOCUMENT NUMBER: 96279681
TITLE: Radioimmunotherapy of solid cancers: A **review**.
AUTHOR: Kairemo K J
CORPORATE SOURCE: Department of Oncology, Helsinki University Central Hospital, Helsinki, Finland.
SOURCE: ACTA ONCOLOGICA, (1996) 35 (3) 343-55. Ref: 92
Journal code: AON. ISSN: 0284-186X.
PUB. COUNTRY: Norway
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199610
AB Depending on **radionuclide** characteristics, radioimmunotherapy (RIT) relies on radioactivity to destroy cells distant from immunotargeted cells. Therefore, even heterogeneous tumors (for antigen recognition) can be treated, because not all cells have to be targeted. Substantial complete response rates have been reported in patients with non-Hodgkin's lymphoma. Much more modest results have been reported for patients with bulky solid tumors, e.g. adenocarcinomas. The radiation doses delivered by targeting **antibodies** are generally too low to achieve major therapeutic responses. Dose escalation is limited by myelotoxicity, and higher doses need to be delivered to neoplasms less radiosensitive than lymphomas. Various trials for both systemic and regional RIT have been reported on. Intraperitoneal administration has been applied for colorectal and ovarian carcinomas. Our own results indicate that, e.g., intraperitoneal pseudomyxoma can be treated with RIT. Myelotoxicity can be reduced by anti-**antibody**-enhancement, 2- and 3-step strategies, bispecific monoclonal **antibodies** (MAbs), and extracorporeal immunoadsorption. The **radionuclide** has to be selected properly for each purpose; it can be a beta-emitter, e.g. I-131, Y-90, Re-188, Re-186, Lu-177 or Sm-153, an alpha-emitter At-211 or Bi-212 or an Auger-emitter, e.g. I-125, I-123. One major problem with RIT, besides slow penetration rate into tumor tissue and low tumor-to-normal tissue ratio, is the HAMA response, which can be partly avoided by the use of humanized MAbs and immunosuppression. However, RIT will be, because of all the recent developments, an important form of **cancer** management.

L13 ANSWER 2 OF 12 MEDLINE
ACCESSION NUMBER: 96190639 MEDLINE
DOCUMENT NUMBER: 96190639
TITLE: **Cancer** therapy with radiolabeled **antibodies**. An overview.
AUTHOR: Bruland O S
CORPORATE SOURCE: Department of Medical Oncology and Radiotherapy, Norwegian Radium Hospital, Oslo, Norway.
SOURCE: ACTA ONCOLOGICA, (1995) 34 (8) 1085-94. Ref: 115
Journal code: AON. ISSN: 0284-186X.
PUB. COUNTRY: Norway
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)

LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199608
AB Considerable progress has been achieved during the last two decades in the use of radiolabeled tumor-selective monoclonal **antibodies** in the diagnosis and therapy of **cancer**. The concept of localizing the cytotoxic **radionuclide** to the **cancer** cell is an important supplement to conventional forms of **radiotherapy**. In theory the intimate contract between a radioactive **antibody** conjugate and a target cell enables the absorbed radiation dose to be concentrated at the site of abnormality with minimal injury to the normal surrounding cells and tissues. A variety of approaches and combinations of this strategy are now being pursued. This synopsis attempts to summarize the theoretical and biological basis for radio-immuno-therapy (RIT), and to **review** present efforts to further develop this treatment. Some of the critical issues in RIT are highlighted, and novel ways of improving the therapeutic indices of these radiopharmaceuticals are outlined. The attention is focused on the results obtained in clinical trials employing RIT. Encouraging complete response rates have recently been reported in patients with non-Hodgkin's lymphoma resistant to combination chemotherapy. More modest results have been obtained in patients with solid cancers. The promises and hurdles in creating tumor-selective radiolabeled **antibodies** for **cancer** therapy are discussed, and prospects for further improvements are presented.

L13 ANSWER 3 OF 12 MEDLINE
ACCESSION NUMBER: 96023712 MEDLINE
DOCUMENT NUMBER: 96023712
TITLE: Radiolabelled monoclonal **antibodies** in tumour imaging and therapy: out of fashion?.
AUTHOR: Delaloye A B; Delaloye B
CORPORATE SOURCE: Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland..
SOURCE: EUROPEAN JOURNAL OF NUCLEAR MEDICINE, (1995 Jun) 22 (6) 571-80. Ref: 106
Journal code: ENC. ISSN: 0340-6997.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199601
AB The initial enthusiasm for the development of diagnostic and therapeutic studies involving the use of monoclonal **antibodies** was replaced by scepticism as hopes remained unfulfilled. Against this background one needs to ask whether immunoscintigraphy (IS) serves clinical needs effectively and whether radioimmunotherapy (RIT) has a future. The current **review** considers these questions by reference to relevant studies. Taking colorectal **cancer** as an example, an appraisal is offered of the ability of IS to detect disease at an early stage and thereby to reduce mortality, and of the influence of the results of IS on patient management. It is concluded that in a limited number of cases of colorectal **cancer** and other solid tumors, IS will allow surgery to be performed at a stage where cure is still possible because of its ability to detect early recurrence. Turning to RIT, the results of studies in respect of various tumour types are reviewed, with due attention to reported toxicity. As regards colorectal **cancer**, no consistent therapeutic effects have been achieved, and myelotoxicity is typically the

dose-limiting factor. Thus many questions remain to be answered, regarding antigens to be targeted, fractionation schedule, the use of "humanised" **antibodies**, choice of **radionuclide** and the use of intact immunoglobulins or fragments. These questions are considered. Overall it is concluded that the most promising application of RIT is as adjuvant therapy in patients with minimal residual disease, and a controlled multicentre trial is recommended. The development of more potent radio-immunoconjugates for therapeutic and ultimately diagnostic purposes will contribute to the improvement and development of IS by increasing its potential to influence prognosis.

L13 ANSWER 4 OF 12 MEDLINE
ACCESSION NUMBER: 95224481 MEDLINE
DOCUMENT NUMBER: 95224481
TITLE: Radioimmunodetection of malignant solid tumours.
AUTHOR: Kairemo K J; Liewendahl K
CORPORATE SOURCE: Department of Clinical Chemistry, University of Helsinki, Finland..
SOURCE: SCANDINAVIAN JOURNAL OF CLINICAL AND LABORATORY INVESTIGATION, (1994 Dec) 54 (8) 569-83. Ref: 140
Journal code: UCP. ISSN: 0036-5513.
PUB. COUNTRY: Norway
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199507
AB An increased clinical utility of radiolabelled monoclonal **antibodies** (MoAb), recognizing a variety of different antigens expressed preferentially in malignant tissue, for localizing primary, metastatic and recurrent **cancer** has been documented in many recent investigations. This **review** focuses on both basic and practical aspects of radioimmunodetection in oncology and is a status report on the performance and limitations of radiolabelled **antibody** procedures currently applied to the clinical detection of malignant solid tumours. At this time clinically validated radioimmunodetection methods are available for colorectal, ovarian, breast, lung, thyroid medullary, and head and neck carcinoma, and melanoma. Recent advances in humanization of MoAb significantly improve the prospects of effective **antibody**-guided **radiotherapy** in the near future.

L13 ANSWER 5 OF 12 MEDLINE
ACCESSION NUMBER: 94137485 MEDLINE
DOCUMENT NUMBER: 94137485
TITLE: Animal models for radiolabeled monoclonal **antibodies** in **cancer** research.
AUTHOR: Aas M; Fjeld J G
CORPORATE SOURCE: Department of Nuclear Medicine, Norwegian Radium Hospital, Oslo..
SOURCE: ACTA ONCOLOGICA, (1993) 32 (7-8) 819-24. Ref: 81
Journal code: AON. ISSN: 0284-186X.
PUB. COUNTRY: Norway
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Cancer Journals
ENTRY MONTH: 199405
AB A **review** of the different animal tumor model systems used for radiolabeled monoclonal **antibody** research is given. Problems within the field of radioimmunotargeting are presented, and the tumor

models are discussed in relation to the types of problems which can be investigated, and the ability of the models to answer different questions.

L13 ANSWER 6 OF 12 MEDLINE
ACCESSION NUMBER: 93099923 MEDLINE
DOCUMENT NUMBER: 93099923
TITLE: A role for gamma scintigraphy in **cancer** immunology and immunotherapy.
AUTHOR: Perkins A C; Pimm M V
CORPORATE SOURCE: Department of Medical Physics, University Hospital, Nottingham, UK.
SOURCE: EUROPEAN JOURNAL OF NUCLEAR MEDICINE, (1992) 19 (12) 1054-63. Ref: 30
Journal code: ENC. ISSN: 0340-6997.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199303
AB Facilities for radiolabelling and gamma scintigraphy are largely restricted to nuclear medicine departments or specialised research institutions and are therefore not widely available to workers in **cancer** research. Despite this, there is growing interest in gamma scintigraphy, which can provide information relevant to the entire field of **cancer** immunology. This **review** discusses the present and future roles of gamma scintigraphy in respect of **antibody**-targeted, cell-mediated and cytokine therapy. The authors aim to show that gamma scintigraphy is an investigative tool of great potential.

L13 ANSWER 7 OF 12 MEDLINE
ACCESSION NUMBER: 90019581 MEDLINE
DOCUMENT NUMBER: 90019581
TITLE: Future role of radiolabeled monoclonal **antibodies** in oncological diagnosis and therapy.
AUTHOR: Goldenberg D M
CORPORATE SOURCE: Center for Molecular Medicine and Immunology, University of
Medicine and Dentistry of New Jersey, Newark 07103.
CONTRACT NUMBER: CA39841 (NCI)
SOURCE: SEMINARS IN NUCLEAR MEDICINE, (1989 Oct) 19 (4) 332-9. Ref: 68
Journal code: UNY. ISSN: 0001-2998.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199001
AB This **review** discusses the current limitations and future prospects of radiolabeled **antibodies** in **cancer** imaging (radioimmunodetection, or RAID) and therapy (radioimmunotherapy, or RAIT).
Aspects such as the **antibody** vehicle, antigen target, radiolabel, tumor, host, and RAID and RAIT procedures are considered. In the short timespan for the development of RAID, tumors as small as 0.5 cm,
which are sometimes missed by other radiological methods, can now be imaged with **antibody** fragments labeled with suitable radionuclides (eg, 111In, 123I, and 99mTc), particularly when single photon emmission computed tomography (SPECT) scanning methods are

employed. 99mTc is clearly the preferred label, and the recent development of simple and rapid methods to attach this isotope to **antibodies** should be a welcome advance for the more widespread use of RAID. In RAIT, radiosensitive neoplasms, such as lymphomas, are already showing impressive responses to 131I-labeled antilymphoma murine monoclonal **antibodies**. Therefore, the successful conjugation of beta- and alpha-emitters to "humanized" monoclonal **antibodies** should provide a new generation of promising **cancer** therapeutics.

L13 ANSWER 8 OF 12 MEDLINE
ACCESSION NUMBER: 77038444 MEDLINE
DOCUMENT NUMBER: 77038444
TITLE: The role of radionuclides in clinical oncology.
AUTHOR: Jones S E; Salmon S E
SOURCE: SEMINARS IN NUCLEAR MEDICINE, (1976 Oct) 6 (4) 331-46.
Ref: 43
Journal code: UNY. ISSN: 0001-2998.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197702
AB The major role of radionuclides in clinical oncology is, in the broadest sense, "tumor scanning". This includes evaluating specific organs for the presence of tumor (usually with different radiopharmaceuticals for each organ) or the entire body (generalized tumor searches with radiopharmaceuticals with 67Ga-citrate or 111Inlabeled bleomycin). The clinician uses these agents in the initial evaluation of the extent of tumor (staging) and in the subsequent management of the patient with **cancer** to assess response to treatment, to detect early relapse, and to assist in making decisions concerning treatment. The uses and limitations of the agents currently available for tumor scanning are summarized in this **review** (by major tumor type) from the perspective of the practicing oncologist. Other potential roles for radionuclides, including use as components of combined modality treatment programs, use as labels for **antibodies** or as drugs for both diagnosis and treatment, and use in the prediction of response to treatment, which are of great interest now and which will become realities for the oncologist in the future, are also considered.

L13 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:12662 CAPLUS
DOCUMENT NUMBER: 128:125305
TITLE: Experimental tumor targeting with radiolabeled ligands
AUTHOR(S): Buchsbaum, Donald J.
CORPORATE SOURCE: Department of Radiation Oncology, University of Alabama at Birmingham, Birmingham, AL, 35294-6832, USA
SOURCE: Cancer (N. Y.) (1997), 80(12, Suppl.), 2371-2377
CODEN: CANCAR; ISSN: 0008-543X
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A **review** with 94 refs. Approaches have been developed in animal models to increase the localization of radiolabeled ligands (monoclonal **antibodies** and peptides) in tumors, to reduce their uptake in normal tissues, and to thus improve the tumor/normal tissue uptake ratios so that higher and more frequent doses of **radionuclide** could be used for radio-immunotherapy. These approaches to increase the localization of radiolabeled ligands in tumors involve the following three

general strategies: modifying ligands or radiolabeling techniques, increasing blood and normal tissue clearance of radiolabeled ligands, and modifying tumor delivery, tumor antigen, or receptor expression or increasing tumor vascular permeability or blood flow. The use of such animal models permits the assessment of a wide range of ligands, radiolabeling conditions, and the efficacy of administration methods before their initial use in clin. trials. The prospects for the use of radiolabeled ligands in **cancer** detection and therapy are promising because of their specificity for binding to receptors on tumor cells or tumor endothelial cells. Methods that increase the localization of radiolabeled ligands in solid tumors while reducing uptake in normal tissues will be required so that a sufficient radiation absorbed dose can be delivered for potentially curative treatment of radio-resistant tumors in clin. radio-immunotherapy trials.

L13 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1997:231543 CAPLUS
DOCUMENT NUMBER: 126:274175
TITLE: The uses of radiations and radionuclides in medicine
AUTHOR(S): Abe, Mitsuyuki
CORPORATE SOURCE: Kyoto National Hospital, Japan
SOURCE: Nippon Aisotopu, Hoshasen Sogo Kaigi Hobunshu (1996), 22nd, Paper 3, 1-10
CODEN: NAHHEZ
PUBLISHER: Nippon Genshiryoku Sangyo Kaigi
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
AB Since the discovery of x-ray and radium, radiations and radionuclides have widely been used in the field of medicine. It is therefore difficult to overview their use in every aspect of medicine. For this reason I will focus my **review**, with no refs., on **cancer** therapy. The serious limiting factor in **radiotherapy** is the difficulty in focussing radiations to the target. In an attempt to overcome this problem, intraoperative **radiotherapy**, conformal **radiotherapy** or stereotactic radiosurgery has been developed. Recently particles such as proton, thermal neutron, heavy ions have been used in **radiotherapy** which enable to localize radiations more selectively to the target. Achieving better dose localization of radiations requires more precise detn. of the target vol. This problem has been resolved by the development of a 3-dimensional treatment planning system using CT or MRI. Recent advent of synchrotron radiation sources has allowed to provide high-intensity monochromatic beams over a wide range of energies. The enhancement over present radiation sources comes from better spatial resoln. and greatly enhanced tissue differentiation (dense tumor mass vs. surrounding soft tissue). If this new radiation can be applied to **cancer** diagnostic, the extent of **cancer** may more precisely be detd. **Radionuclide** therapy is divided into brachy therapy using shield sources and systemic **radionuclide** therapy using unshield sources. The characteristic of brachytherapy is to irradiate locally the target with rapid fall-off in radiation dose to the surrounding tissues. Thereby radiation injury to normal structures can be minimized. The problem is that the indication is limited to tumors to which shield sources can adequately be approached. In systemic **radionuclide** therapy, the most important one is 131I therapy for metastatic tumors from thyroid **cancer**. **Radionuclide** therapy is also used for the treatment of other malignancies such as neuroblastoma or pheochromocytoma. Recent development of radiolabeled **antibody** therapy is expected to open a new horizon for **radionuclide** therapy. The 5-yr survival rate for all **cancer** patients amts. now to about 50%. In this situation we must

aim to improve not only the cure rate but also quality of life for **cancer** patients so that they can enjoy their lives worth living. We think that this aim will be accomplished in the not distant future by further development of radiation and **radionuclide** therapy, because **radiotherapy**'s most prominent characteristic is its ability to cure **cancer** while minimally affecting the patients' normal tissues and functions.

L13 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:195965 CAPLUS
DOCUMENT NUMBER: 124:254565
TITLE: Metallic radionuclides: applications in diagnostic and therapeutic nuclear medicine
AUTHOR(S): Weiner, R. E.; Thakur, M. L.
CORPORATE SOURCE: Health Cent., Univ. Connecticut, Farmington, CT, 06030-2804, USA
SOURCE: Radiochim. Acta (1995), 70/71, 273-87
CODEN: RAACAP; ISSN: 0033-8230
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A **review**, with 115 refs. Nuclear Medicine is a medical modality that utilizes radioactivity (radiopharmaceutical) to diagnose and treat disease. Radiopharmaceuticals contain a component which directs the **radionuclide** to the desire physiol. target. For diagnostic applications, these nuclides must emit a .gamma. ray that can penetrate the body and can be detected externally while for therapeutic purposes nuclides are preferred that emit .beta. particles and deliver highly localized tissue damage. 67Ga citrate is employed to detect chronic occult abscesses, Hodgkin's and non-Hodgkin's lymphomas, lung **cancer**, hepatoma and melanoma and localizes in these tissues utilizing iron-binding proteins, 201Thallous chloride, a potassium analog, used to diagnosis coronary artery disease, is incorporated in muscle tissue via the Na+-K+-ATPase. 111In labeled autologous white blood cells, used for the diagnosis of acute infections and inflammations, takes advantage of the white cell's role in fighting infections. 111In is incorporated in other radiopharmaceuticals e.g. polyclonal IgG, OncoScint CR/OV, OctreoScan and Myoscint by coupling diethylenetriamine-Scint Cr/OV and Myoscint by coupling diethylenetriamine-pentaacetic acid, a chelate, covalently to these mols. Onco-Scint CR/OV and Myoscint localize by antigen-**antibody** interactions while OctreoScan is taken up by malignant cells in a receptor based process. Polyclonal IgG may share some localization characteristics with 67Ga. 89Sr, a pure .beta. emitter, is used for pallation of bone pain due to metastatic bone lesions. Bone salts [Ca(PO)4] are increased in these lesions and this **radionuclide** is taken up similarly to Ca2+. 186Re and 153Sm bound to polydentate phosphonate chelates are used similarly and follow the phosphate pathway in lesion incorporation.

L13 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1995:955496 CAPLUS
DOCUMENT NUMBER: 124:80914
TITLE: 32P-labeled **antibodies** for radioimmunotherapy: A **review** of recent developments and a preliminary report of the first phase I studies
AUTHOR(S): Band, H. A.; Creighton, A. M.; Britton, K. E.; Long, J.; Bartram, C.; Granowska, M.
CORPORATE SOURCE: Department Nuclear Medicine, St Bartholomew's Hospital, London, EC1, UK
SOURCE: Tumor Targeting (1995), 1(2), 85-92
CODEN: TUTAF9; ISSN: 1351-8488

DOCUMENT TYPE: Journal
LANGUAGE: English

AB We have described earlier a method for labeling mAb's etc. with carrier-free 32P giving products which allow the **radionuclide** to be targeted to tumors with appropriate receptors (Foxwell et al., 1988; Br. J. **Cancer**, 57, 489-93). In our current, simplified procedure, we couple a phosphate-receptor peptide directly to the **antibody** and phosphorylate enzymically with 32P-ATP. Radiochem. yields in clin. prepns. have been about 40-50 % and can be improved. In one pilot phase I study, four polycythemic patients received single doses of 1.9-5.5 mCi i.v. (at 1.00-1.65 mCi mg-1) of 32P-labeled SM3. The labeled conjugate cleared from the circulation at a very similar rate to the corresponding macrocyclic 111In-labeled **antibody**. There was no significant effect on Hb, white cells or blood chem., but in two patients with high platelets receiving about 5 mCi of 32P-SM3, a significant redn. in platelets was obsd. to normal levels. In a second study involving hepatic metastases from colorectal primaries, the first two patients were treated with 2.4-5.0 mCi of 32P-labeled PR1A3 intra-arterially (at 0.74-1.0 mCi mg-1) without untoward effect. Good stability was again achieved, and in one case a second treatment at the higher level of 5 mCi was given 4 mo later. A fall in serum carcinoembryonic antigen (CEA) was noted but with CT scans indicating an increase in tumor size. The way now appears to be clear for the evaluation of 32P-labeled **antibodies** in the treatment of cancers.

08/776737

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:601829 CAPLUS
DOCUMENT NUMBER: 125:230859
TITLE: Compositions comprising a **tissue glue** and **therapeutic** agents
INVENTOR(S): Filler, Aaron Gershon; Lever, Andrew Michael Lindsay
PATENT ASSIGNEE(S): Syngenix Limited, UK
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: A61K009-00
SECONDARY: A61K009-20; A61K047-32; A61K047-42
CLASSIFICATION: 63-6 (Pharmaceuticals)
Section cross-reference(s): 8
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9603112	A1	19960208	WO 1995-GB1330	19950607
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 804153	A1	19971105	EP 1995-921073	19950607
R: DE, FR, GB				
US 5948384	A	19990907	US 1995-473697	19950607
PRIORITY APPLN. INFO.:			US 1993-988919	19930504
			GB 1994-14684	19940721
			GB 1994-15405	19940725
			GB 1995-2246	19950206
			GB 1995-3357	19950221
			GB 1990-20075	19900914
			GB 1990-23580	19901030
			GB 1990-27293	19901217
			GB 1991-233	19910107
			GB 1991-981	19910116
			GB 1991-2146	19910131
			GB 1991-10876	19910520
			GB 1991-16373	19910730
			GB 1991-17851	19910819
			GB 1991-18676	19910830
			WO 1995-GB1330	19950607

ABSTRACT:
The title compns. are used for percutaneous or surgical application of ***therapeutic*** agents which are intended to remain at or near the location, esp. for local radiotherapy. A .beta.-emitting ferrite or other radiotherapeutic agent in particulate form is suspended in a **tissue** ***glue*** . FeCl3.cntdot.6H2O was dissolved into a soln. contg. dextran in ddH2O. The reaction product was spun to obtain a supernatant, which was applied to PD-10 columns. The black eluted fraction was used with a ***tissue*** **glue**.

SUPPL. TERM: **tissue glue** radioelement tumor therapy; radiotherapy local tumor protein glue radioelement
INDEX TERM: Neoplasm
Radiotherapy
(compns. contg. **tissue glue** and

therapeutic agents for local radiotherapy)

INDEX TERM: **Ferrite substances**
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg. **tissue glue** and **therapeutic** agents for local radiotherapy)

INDEX TERM: Glues
(tissue; compns. contg. **tissue glue** and **therapeutic** agents for local radiotherapy)

INDEX TERM: Virus, animal
(vectors; compns. contg. **tissue glue** and **therapeutic** agents for local radiotherapy)

INDEX TERM: Neuroglia
(astroglia, agents ingested by astrocytes; compns. contg. **tissue glue** and **therapeutic** agents for local radiotherapy)

INDEX TERM: Radioelements, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates, compns. contg. **tissue glue** and **therapeutic** agents for local radiotherapy)

INDEX TERM: Proteins, specific or class
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(glue, compns. contg. **tissue glue** and **therapeutic** agents for local radiotherapy)

INDEX TERM: 10098-91-6, Y-90, biological studies 14967-68-1, Pd-103, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg. **tissue glue** and **therapeutic** agents for local radiotherapy)

=> s adhesi?

L9 427092 ADHESI?

=> s l9 or l2

L10 427199 L9 OR L2

=> s l10 and therapeuti?

L11 12961 L10 AND THERAPEUTI?

=> l11 and l4

L11 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l11 and l4

L12 2 L11 AND L4

=> l11 and l5

L11 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l11 and l5

L13 1 L11 AND L5

=> s l11 and l6

L14 34 L11 AND L6

=> s l11 and l7

L15 236 L11 AND L7

=> s l11 and radioelements

L16 10 L11 AND RADIOELEMENTS

=> s l16 and l14

L17 5 L16 AND L14

=> d iall 1-5

L17 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1995:541489 CAPLUS
DOCUMENT NUMBER: 122:288916
TITLE: Diagnostic, prognostic, and **therapeutic** methods for solid non-lymphoid tumors and their metastases
INVENTOR(S): Barbera-Guillem, Emilio; Cohen, Stefan A.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: G01N033-53
SECONDARY: G01N033-574; A61K039-00; C12Q001-68
CLASSIFICATION: 15-3 (Immunochemistry)
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9507462	A1	19950316	WO 1994-US10060	19940902
W: AU, BR, CA, CN, JP, KR, NO, PL, RU, UA				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5536642	A	19960716	US 1993-118969	19930909
CA 2170623	AA	19950316	CA 1994-2170623	19940902
AU 9477220	A1	19950327	AU 1994-77220	19940902
AU 686233	B2	19980205		
CN 1130944	A	19960911	CN 1994-193358	19940902
EP 737311	A1	19961016	EP 1994-928028	19940902
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09503582	T2	19970408	JP 1994-508772	19940902
NO 9600925	A	19960509	NO 1996-925	19960307
PRIORITY APPLN. INFO.:			US 1993-118969	19930909
			WO 1994-US10060	19940902

ABSTRACT:
The present invention is directed to the measurement of cell-assocd. interleukin-2 receptor .alpha. (IL-2R.alpha.) expression in solid nonlymphoid tumors, and the use of such measurement in prognosing the metastatic potential of the tumor, diagnosing the metastatic localization of non-lymphoid tumor, and

aiding the monitoring of efficacy of anticancer therapy against metastatic cells of non-lymphoid tumor. Methods are provided for targeting anticancer therapy against metastatic cells of non-lymphoid tumors directly to the prometastatic territories where they develop, and include the use of IL-2R.alpha. as a target for compds. used in the anticancer therapy. The present invention also relates to the use of T-cell receptor (tumor specific TCR.beta. idiotype) in monitoring the efficacy of anticancer therapy against non-lymphoid tumors, as well as the use of tumor specific TCR.beta. idiotype as
a target for compds. used in anticancer therapy against these tumors. Useful compds. consist of a first component (e.g. interleukin 1 or 2) and a second antineoplastic agent (i.e. toxin, radionuclide, enterotoxin, or chemotherapeutical agent) which are linked to a targeting agent, such as N-acetyl galactosamine or glucosamine-specific lectin, anti-ICAM antibody, wheat germ agglutinin, or liposome.

SUPPL. TERM: solid nonlymphoid tumor metastasis inhibitor; neoplasm inhibitor interleukin targeting agent; T cell receptor beta chain; receptor interleukin 2 alpha chain

INDEX TERM: **Agglutinins** and **Lectins**
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neoplasm inhibitor conjugates; neoplasm inhibitor linked
to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating
solid non-lymphoid tumor metastasis)

INDEX TERM: Liposome
Neoplasm inhibitors
(neoplasm inhibitor linked to targeting agent specific to
interleukin 2 receptor .alpha. and T cell receptor .beta.
as target for treating solid non-lymphoid tumor metastasis)

INDEX TERM: Toxins
Radioelements, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(targeting agent-linked; neoplasm inhibitor linked to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating
solid non-lymphoid tumor metastasis)

INDEX TERM: Antibodies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(to ICAM; neoplasm inhibitor conjugates; neoplasm inhibitor linked to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta.
as target for treating solid non-lymphoid tumor metastasis)

INDEX TERM: Glycoproteins, specific or class
ROLE: BSU (Biological study, unclassified); BIOL (Biological
study)
(ICAM (intercellular **adhesion** mol.), antibody to; neoplasm inhibitor linked to targeting agent specific
to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating solid non-lymphoid tumor metastasis)

INDEX TERM: Antigen receptors

Receptors
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(TCR (T-cell antigen receptor), .beta. chain; neoplasm inhibitor linked to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating solid non-lymphoid tumor metastasis)

INDEX TERM: **Therapeutics**
(chemo-, targeting agent-linked; neoplasm inhibitor linked to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating solid non-lymphoid tumor metastasis)

INDEX TERM: Toxins
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(entero-, Staphylococcal; targeting agent-linked; neoplasm inhibitor linked to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating solid non-lymphoid tumor metastasis)

INDEX TERM: Wheat
(germ, agglutinin; neoplasm inhibitor conjugates; neoplasm inhibitor linked to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating solid non-lymphoid tumor metastasis)

INDEX TERM: Lymphokines and Cytokines
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interleukin 1, neoplasm inhibitor linked to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating solid non-lymphoid tumor metastasis)

INDEX TERM: Lymphokines and Cytokines
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interleukin 2, neoplasm inhibitor linked to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating solid non-lymphoid tumor metastasis)

INDEX TERM: Lymphokine and cytokine receptors
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(interleukin 2 p55, neoplasm inhibitor linked to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating solid non-lymphoid tumor metastasis)

INDEX TERM: Receptors
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(interleukin 2, p55, neoplasm inhibitor linked to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating solid non-lymphoid tumor metastasis)

INDEX TERM: Neoplasm

(metastasis, solid nonlymphoid; neoplasm inhibitor linked
to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for treating
solid non-lymphoid tumor metastasis)

INDEX TERM: 1811-31-0, N-Acetylgalactosamine 7512-17-6, N-Acetylglucosamine
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(lectin specific for; antibody to; neoplasm inhibitor linked to targeting agent specific to interleukin 2 receptor .alpha. and T cell receptor .beta. as target for
treating solid non-lymphoid tumor metastasis)

L17 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:512963 CAPLUS
DOCUMENT NUMBER: 119:112963
TITLE: Aptamers specific for biomolecules and method of making them
INVENTOR(S): Toole, John J.; Griffin, Linda C.; Bock, Louis C.; Latham, John A.; Muenchau, Daryl Dean; Krawczyk, Steven
PATENT ASSIGNEE(S): Gilead Sciences, Inc., USA
SOURCE: PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: C12Q001-68
SECONDARY: C07H015-12; C07H017-00
CLASSIFICATION: 9-14 (Biochemical Methods)
Section cross-reference(s): 1, 3
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9214843	A1	19920903	WO 1992-US1383	19920221
W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, US				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG				
CA 2104698	AA	19920822	CA 1992-2104698	19920221
AU 9214354	A1	19920915	AU 1992-14354	19920221
EP 572529	A1	19931208	EP 1992-907174	19920221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 06508022	T2	19940914	JP 1992-507073	19920221
US 5582981	A	19961210	US 1994-234613	19940428
US 5840867	A	19981124	US 1994-237973	19940503
PRIORITY APPLN. INFO.:			US 1991-658796	19910221
			US 1991-658849	19910221
			US 1991-659103	19910221
			US 1991-659113	19910221
			US 1991-659114	19910221
			US 1991-659980	19910221
			US 1991-659981	19910221
			US 1991-744870	19910814
			US 1991-745215	19910814
			US 1991-787921	19911106
			WO 1992-US1383	19920221

ABSTRACT:
A method for identifying oligomer sequences which specifically bind target

mols. (serum proteins, kinins, eicosanoids, etc.) is described. The technique involves complexation of the target mol. with a mixt. of oligonucleotides contg. random sequences and sequences which serve as PCR primers under conditions in which a complex is formed with the specifically binding sequences, but not with the other members of the oligonucleotide mixt. The complex is then sepd. from uncomplexed oligonucleotides, and the complexed members of the oligonucleotide mixt. are recovered from the sepd. complex using
PCR. The recovered oligonucleotides may be sequenced, and successive rounds of
selection using complexation, sepn., amplification, and recovery can be employed. The oligonucleotides can be used for **therapeutic** and diagnostic purposes. The method is used to generate aptamers that bind serum factor X, thrombin, bradykinin, and prostaglandin F2.alpha.. Aptamer specificity for binding to and inhibition of thrombin was demonstrated.

SUPPL. TERM: aptamer oligonucleotide prepn; blood coagulation factor X aptamer; thrombin aptamer; bradykinin aptamer; prostaglandin
F2 aptamer

INDEX TERM: Immunomodulators
(aptamer conjugates as)

INDEX TERM: Aflatoxins
Eicosanoids
Carbohydrates and Sugars, biological studies
Peptides, biological studies
Polysaccharides, biological studies
Proteins, biological studies
Steroids, biological studies
ROLE: ANST (Analytical study)
(aptamer oligonucleotide binding to)

INDEX TERM: Glycolipids
ROLE: BIOL (Biological study)
(aptamer oligonucleotide binding to)

INDEX TERM: Monosaccharides
ROLE: BIOL (Biological study)
(aptamer oligonucleotide binding to)

INDEX TERM: Glycerides, biological studies
ROLE: BIOL (Biological study)
(aptamer oligonucleotide binding to)

INDEX TERM: Glycoproteins, biological studies
ROLE: BIOL (Biological study)
(aptamer oligonucleotide binding to)

INDEX TERM: Glycosaminoglycans, biological studies
ROLE: BIOL (Biological study)
(aptamer oligonucleotide binding to)

INDEX TERM: Lipids, biological studies
ROLE: BIOL (Biological study)
(aptamer oligonucleotide binding to)

INDEX TERM: Diagnosis
(aptamers for)

INDEX TERM: Deoxyribonucleic acids
ROLE: ANST (Analytical study)
(aptamers, for binding biomols.)

INDEX TERM: Pharmaceuticals
(conjugates, with aptamers)

INDEX TERM: Ligands
ROLE: ANST (Analytical study)
(for cell surface receptors, immunomodulatory conjugates,
aptamers in relation to)

INDEX TERM: Polymerase chain reaction
Reducing agents
(in aptamer prepn.)

INDEX TERM: Receptors

ROLE: ANST (Analytical study)
(of cell surface, ligands for, immunomodulatory conjugates, aptamers in relation to)

INDEX TERM: Immobilization, biochemical
(of target mol., in aptamer prepn.)

INDEX TERM: **Agglutinins** and **Lectins**
ROLE: SPN (Synthetic preparation); PREP (Preparation)
(solid support contg., in aptamer prepn.)

INDEX TERM: Albumins, biological studies
ROLE: BIOL (Biological study)
(thrombin aptamer binding activity for)

INDEX TERM: Antigens
ROLE: ANST (Analytical study)
(CD4, aptamer oligonucleotide binding to)

INDEX TERM: Glycophosphoproteins
ROLE: BIOL (Biological study)
(E-selectins, aptamer oligonucleotide binding to)

INDEX TERM: Histocompatibility antigens
ROLE: BIOL (Biological study)
(HLA, aptamer oligonucleotide binding to)

INDEX TERM: Glycoproteins, specific or class
ROLE: BIOL (Biological study)
(ICAM-1 (intercellular **adhesion** mol. 1), aptamer oligonucleotide binding to)

INDEX TERM: Glycoproteins, specific or class
ROLE: BIOL (Biological study)
(ICAM-2 (intercellular **adhesion** mol. 2), aptamer oligonucleotide binding to)

INDEX TERM: Glycoproteins, specific or class
ROLE: BIOL (Biological study)
(P-selectins, aptamer oligonucleotide binding to)

INDEX TERM: Sialoglycoproteins
ROLE: ANST (Analytical study)
(VCAM-1 (vascular cell **adhesion** mol. 1), aptamer oligonucleotide binding to)

INDEX TERM: Molecules
(biochem., aptamer oligonucletides binding to)

INDEX TERM: Animal growth regulators
ROLE: ANST (Analytical study)
(blood platelet-derived growth factors, .alpha.-, aptamer oligonucleotide binding to)

INDEX TERM: Animal growth regulators
ROLE: ANST (Analytical study)
(blood platelet-derived growth factors, .beta.-, aptamer oligonucleotide binding to)

INDEX TERM: Antibodies
ROLE: ANST (Analytical study)
(conjugates, immunomodulatory, aptamer in relation to)

INDEX TERM: **Radioelements**, compounds
Toxins
ROLE: ANST (Analytical study)
(conjugates, with aptamers)

INDEX TERM: Imaging
(contrast agents, conjugates, with aptamers)

INDEX TERM: Oligosaccharides
ROLE: ANST (Analytical study)
(di-, aptamer oligonucleotide binding to)

INDEX TERM: Toxins
ROLE: ANST (Analytical study)
(diphtheria, aptamer oligonucleotide binding to)

INDEX TERM: Receptors
ROLE: ANST (Analytical study)
(epidermal growth factor/.alpha.-transforming growth factor, gene c-erbB, aptamer oligonucleotide binding to)

INDEX TERM: Receptors
ROLE: ANST (Analytical study)
(interleukin 1, aptamer oligonucleotide binding to)

INDEX TERM: Lymphokines and Cytokines
ROLE: BIOL (Biological study)
(interleukin 1, receptors, aptamer oligonucleotide binding to)

INDEX TERM: Lymphokines and Cytokines
ROLE: BIOL (Biological study)
(interleukins, aptamer oligonucleotide binding to)

INDEX TERM: Nucleotides, polymers
ROLE: ANST (Analytical study)
(oligo-, aptamers, for binding biomols.)

INDEX TERM: Proteins, specific or class
ROLE: ANST (Analytical study)
(transforming, aptamer oligonucleotide binding to)

INDEX TERM: Receptors
ROLE: ANST (Analytical study)
(tumor necrosis factor, aptamer oligonucleotide binding to)

INDEX TERM: Lymphokines and Cytokines
ROLE: BIOL (Biological study)
(tumor necrosis factor, aptamer oligonucleotide binding to)

INDEX TERM: Lymphokines and Cytokines
ROLE: BIOL (Biological study)
(tumor necrosis factor, receptors, aptamer oligonucleotide binding to)

INDEX TERM: Animal growth regulators
ROLE: ANST (Analytical study)
(.alpha.-transforming growth factors, gene c-erbB receptors, aptamer oligonucleotide binding to)

INDEX TERM: Gene, animal
ROLE: ANST (Analytical study)
(c-erbB2, protein product of, aptamer oligonucleotide binding to)

INDEX TERM: 9000-94-6, Antithrombin III 9001-12-1, Collagenase
9002-03-3, Dihydrofolate reductase 9004-06-2, Elastase
9027-44-5, Hydroxymethyl glutaryl CoA synthase
62031-54-3,
Fibroblast growth factor 107231-12-9, Botulin
ROLE: ANST (Analytical study)
(aptamer oligonucleotide binding to)

INDEX TERM: 51-45-6, Histamine, biological studies
ROLE: BIOL (Biological study)
(aptamer oligonucleotide binding to)

INDEX TERM: 58-82-2, Bradykinin 551-11-1, Prostaglandin F2.alpha.
9001-29-0, Blood-coagulation factor X 9002-04-4, Thrombin
ROLE: ANST (Analytical study)
(aptamer oligonucleotide binding to, prepn. of)

INDEX TERM: 50-99-7, D-Glucose, biological studies 59-23-4,
D-Galactose, biological studies 60-24-2,
.beta.-Mercaptoethanol 1811-31-0, N-Acetylgalactosamine
3483-12-3, Dithiothreitol 7512-17-6, N-Acetylglucosamine
27939-30-6, .alpha.-Methyl-mannoside
ROLE: ANST (Analytical study)
(in aptamer prepn.)

INDEX TERM: 62229-50-9, Epidermal growth factor
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(receptor, aptamer oligonucleotide binding to)

INDEX TERM: 145563-68-4 145751-88-8 146484-44-8 146484-45-9
146484-46-0 146484-47-1 146484-48-2 146484-49-3
146484-50-6 146484-51-7 146484-52-8 146484-53-9

146484-54-0 146484-55-1 146484-56-2 146484-57-3
146484-58-4 146484-59-5 146484-61-9 146484-62-0
146484-63-1 146484-64-2 146484-65-3 146484-66-4
146484-67-5 146484-68-6 146484-69-7 146484-70-0
146484-71-1 146484-72-2 146484-73-3 149460-11-7
ROLE: ANST (Analytical study)
(thrombin aptamer)

INDEX TERM: 9001-26-7, Prothrombin 9001-90-5, Plasmin
ROLE: ANST (Analytical study)
(thrombin aptamer binding activity for)

INDEX TERM: 77887-18-4
ROLE: ANST (Analytical study)
(thrombin-binding aptamer contg.)

INDEX TERM: 838-07-3, 5-Methyl-2'-deoxycytidine
ROLE: ANST (Analytical study)
(thrombin-binding aptamers contg.)

L17 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1992:626338 CAPLUS
DOCUMENT NUMBER: 117:226338
TITLE: Endothelial cell-monocyte **adhesion** molecule
INVENTOR(S): Berliner, Judith A.; Kim, Jeong Ai; Territo, Mary C.; Fogelman, Alan M.
PATENT ASSIGNEE(S): University of California, Oakland, USA
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: C07K015-00
SECONDARY: C07K015-28; C12P021-00; G01N033-53
CLASSIFICATION: 1-12 (Pharmacology)
Section cross-reference(s): 9
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9214757	A1	19920903	WO 1992-US1496	19920225
W: AU, BB, BG, BR, CA, FI, HU, JP, KP, KR, LK, MG, MW, NO, PL, RO, RU, SD, US				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG				
CA 2037345	AA	19920826	CA 1991-2037345	19910228
AU 9215582	A1	19920915	AU 1992-15582	19920225
PRIORITY APPLN. INFO.:			US 1991-660024	19910225
			WO 1992-US1496	19920225

ABSTRACT:
Substantially pure endothelial cell-monocyte **adhesion** mol. (EMAM) is disclosed, as is a process for inducing EMAM comprising contacting an endothelial cell with minimally oxidized LDL (MM-LDL). Also disclosed are methods for identifying inhibitors of binding of EMAM ligand to EMAM receptor, methods of ameliorating EMAM receptor-mediated pathol. (e.g. atherosclerosis, inflammatory disease, autoimmune disease, malignancy), methods of detecting EMAM-mediated pathol., and methods for purifying a member of the EMAM receptor/EMAM ligand binding pair. RIA and ELISA were used to characterize the
monocyte **adhesion** mol. on endothelial cells induced with MM-LDL. Lactose-1-phosphate and other sugar derivs. blocked binding of THP-1 monocytes to MM-LDL-treated endothelial cells by 90-100%. Tumor cell **adhesion** to MM-LDL-treated endothelial cells is also described.

SUPPL. TERM: endothelial cell monocyte **adhesion** mol
INDEX TERM: Animal cell line
(716-1, minimally oxidized LDL-treated endothelial cell

adhesion activity for, endothelial cell-monocyte **adhesion** mol. in relation to)

INDEX TERM: Animal cell line
(DLD, minimally oxidized LDL-treated endothelial cell **adhesion** activity for, endothelial cell-monocyte **adhesion** mol. in relation to)

INDEX TERM: Glycoproteins, specific or class
ROLE: BIOL (Biological study)
(EMAM (endothelial cell-monocyte **adhesion** mol.), induction and characterization of, on endothelial cell with minimally oxidized LDL)

INDEX TERM: Glycoproteins, specific or class
ROLE: BIOL (Biological study)
(EMAM (endothelial monocyte **adhesion** mol.), antagonists, identification of)

INDEX TERM: Enzymes
ROLE: BIOL (Biological study)
(LDL minimal oxidn. with, for endothelial cell-monocyte **adhesion** mol. induction on endothelial cell)

INDEX TERM: **Agglutinins** and **Lectins**
ROLE: BIOL (Biological study)
(as endothelial cell-monocyte **adhesion** mol. binding agents)

INDEX TERM: Neoplasm
(cells of, binding of minimally oxidized LDL-treated endothelial cells to, endothelial cell-monocyte **adhesion** mol. in relation to)

INDEX TERM: Immunomodulators
Pharmaceuticals
(conjugates, with endothelial cell-monocyte **adhesion** mol. agent, for **therapeutic**)

INDEX TERM: Monocyte
(endothelial cell **adhesion** to, endothelial cell-monocyte **adhesion** mol. in)

INDEX TERM: Inflammation inhibitors
Neoplasm inhibitors
Therapeutics
(endothelial cell-monocyte **adhesion** mol. agents)

INDEX TERM: Soybean
(lipoxygenase of, LDL minimal oxidn. with, for endothelial cell-monocyte **adhesion** mol. induction on endothelial cell)

INDEX TERM: Antibodies
ROLE: BIOL (Biological study)
(to endothelial cell-monocyte **adhesion** mol.)

INDEX TERM: Autoimmune disease
(treatment of, endothelial cell-monocyte **adhesion** mol. agents for)

INDEX TERM: Animal cell line
(HT-29, minimally oxidized LDL-treated endothelial cell **adhesion** activity for, endothelial cell-monocyte **adhesion** mol. in relation to)

INDEX TERM: Animal cell line
(MCF-7, minimally oxidized LDL-treated endothelial cell **adhesion** activity for, endothelial cell-monocyte **adhesion** mol. in relation to)

INDEX TERM: Animal cell line
(SK-BR-3, minimally oxidized LDL-treated endothelial cell **adhesion** activity for, endothelial cell-monocyte **adhesion** mol. in relation to)

INDEX TERM: Animal cell line
(THP-1, minimally oxidized LDL-treated endothelial cell **adhesion** activity for, endothelial cell-monocyte

adhesion mol. in relation to)

INDEX TERM: Diagnosis
(agents, endothelial cell-monocyte **adhesion** mol. for)

INDEX TERM: Antiarteriosclerotics
(antiatherosclerotics, endothelial cell-monocyte **adhesion** mol. agents)

INDEX TERM: Neoplasm inhibitors
(colon carcinoma, endothelial cell-monocyte **adhesion** mol. agents)

INDEX TERM: Intestine, neoplasm
(colon, carcinoma, inhibitors, endothelial cell-monocyte **adhesion** mol. agents)

INDEX TERM: **Radioelements**, compounds
Toxins
ROLE: BIOL (Biological study)
(conjugates, with endothelial cell-monocyte **adhesion** mol. agent, for **therapeutic**)

INDEX TERM: Blood vessel
(endothelium, cells of, endothelial cell-monocyte **adhesion** mol. induction on, with minimally oxidized LDL)

INDEX TERM: Lipoproteins
ROLE: BIOL (Biological study)
(low-d., oxidized, minimally, endothelial cell-monocyte **adhesion** mol. induction on endothelial cell with)

INDEX TERM: Neoplasm inhibitors
(mammary gland, endothelial cell-monocyte **adhesion** mol. agents)

INDEX TERM: Antibodies
ROLE: BIOL (Biological study)
(monoclonal, to endothelial cell-monocyte **adhesion** mol.)

INDEX TERM: Mammary gland
(neoplasm, inhibitors, endothelial cell-monocyte **adhesion** mol. agents)

INDEX TERM: 7439-89-6D, Iron, salts 7440-50-8D, Copper, salts 7720-78-7, Ferrous sulfate 7758-98-7, Cupric sulfate, biological studies 9001-84-7, Phospholipase A2 9013-93-8, Phospholipase 9029-60-1, Lipoxygenase
ROLE: BIOL (Biological study)
(LDL minimal oxidn. with, for endothelial cell-monocyte **adhesion** mol. induction on endothelial cell)

INDEX TERM: 7512-17-6, N-Acetylglucosamine 15896-49-8, Maltose-1-phosphate 20057-11-8, Lactose-1-phosphate
ROLE: BIOL (Biological study)
(endothelial cell-monocyte **adhesion** mol. antagonist)

INDEX TERM: 60-00-4, EDTA, biological studies 67-42-5, EGTA 7439-95-4, Magnesium, biological studies 7440-70-2, Calcium, biological studies 84477-87-2, H7
ROLE: BIOL (Biological study)
(monocyte binding to minimally oxidized LDL-treated endothelial cell in presence of, endothelial cell-monocyte **adhesion** mol. in relation to)

L17 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1992:456076 CAPLUS
DOCUMENT NUMBER: 117:56076
TITLE: Particulate agents for diagnosis or **therapeutics** or prophylaxis
INVENTOR(S): Filler, Aaron Gershon
PATENT ASSIGNEE(S): St. George's Enterprises Ltd., UK
SOURCE: PCT Int. Appl., 130 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: A61K047-48
SECONDARY: A61K049-00
CLASSIFICATION: 63-8 (Pharmaceuticals)
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9204916	A2	19920402	WO 1991-EP1780	19910913
WO 9204916	A3	19920820		
W: AU, CA, JP, NO, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
AU 9185142	A1	19920415	AU 1991-85142	19910913
EP 548157	A1	19930630	EP 1991-916129	19910913
EP 548157	B1	19980520		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 166233	E	19980615	AT 1991-916129	19910913
EP 861667	A2	19980902	EP 1997-119199	19910913
R: DE, FR, GB				
CA 2099869	AA	19920708	CA 1992-2099869	19920104
US 5948384	A	19990907	US 1995-473697	19950607
PRIORITY APPLN. INFO.:			GB 1990-20075	19900914
			GB 1990-23580	19901030
			GB 1990-27293	19901217
			GB 1991-233	19910107
			GB 1991-981	19910116
			GB 1991-2146	19910131
			GB 1991-10876	19910520
			GB 1991-16373	19910730
			GB 1991-17851	19910819
			GB 1991-18676	19910830
			EP 1991-916129	19910913
			WO 1991-EP1780	19910913
			US 1993-988919	19930405

ABSTRACT:
A means of pharmaceutical delivery for therapy or prophylaxis or to assist surgical or diagnostic operations on the living body is provided by neuronal endocytosis and axonal transport following pharmaceutical administration into vascularized, peripherally innervated tissue, e.g., i.m. injections of a nerve ***adhesion*** mol. in a coupled particle comprising a physiol. active substance or a diagnostic marker. The marked substances are metal oxides, metal sulfides or alloys with a mean particle size of 10-50 nm. Ferrite particles were prepd., coated on dextran, and conjugated to a nerve ***adhesion*** mol., e.g., a lectin or agglutinin.

SUPPL. TERM: particle nerve **adhesion** diagnosis **therapeutics**

INDEX TERM: Nerve
(**adhesion** substances, particles contg. metals and, for diagnosis or prophylaxis or **therapeutics**)

INDEX TERM: **Agglutinins** and **Lectins**
ROLE: BIOL (Biological study)
(nerve **adhesion** substances, particles contg. metals and, for diagnosis or prophylaxis or **therapeutics**)

INDEX TERM: Diagnosis
(particles contg. metals and nerve **adhesion** mol. for)

INDEX TERM: Ferrite substances
Spinel-group minerals
Alloys, biological studies

Oxides, biological studies
Radioelements, biological studies
Rare earth metals, biological studies
Sulfides, biological studies
ROLE: BIOL (Biological study)
(particles contg. nerve **adhesion** mol. and, for diagnosis or prophylaxis or **therapeutics**)

INDEX TERM: 9004-54-0, Dextran, biological studies
ROLE: BIOL (Biological study)
(particles contg. metal particles coated with and nerve **adhesion** mol., for diagnosis or prophylaxis or **therapeutics**)

INDEX TERM: 7440-20-2, Scandium, biological studies 14092-99-0, Manganese 52, biological studies 14093-04-0, Iron 52, biological studies 14276-61-0, Scandium 43, biological studies
ROLE: BIOL (Biological study)
(particles contg. nerve **adhesion** mol. and, for diagnosis or prophylaxis or **therapeutics**)

L17 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1992:251698 CAPLUS
DOCUMENT NUMBER: 116:251698
TITLE: A composition providing improved clearance of bioactive substances from the bloodstream
INVENTOR(S): Selmer, Johan
PATENT ASSIGNEE(S): Novo-Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: A61K039-00
SECONDARY: A61K047-48; A61K049-00
CLASSIFICATION: 9-16 (Biochemical Methods)
Section cross-reference(s): 63
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9201469	A1	19920206	WO 1991-DK215	19910724
W: AU, CA, CS, FI, HU, JP, KR, NO, PL, SU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
AU 9182828	A1	19920218	AU 1991-82828	19910724
AU 659092	B2	19950511		
EP 540588	A1	19930512	EP 1991-913278	19910724
EP 540588	B1	19950621		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 05509092	T2	19931216	JP 1991-512515	19910724
NO 9300218	A	19930324	NO 1993-218	19930122
PRIORITY APPLN. INFO.:			DK 1990-1762	19900724
			WO 1991-DK215	19910724

ABSTRACT:
A diagnostic or **therapeutical** compn. comprises, in sep. containers, (1) a capturing agent (e.g. antibody) capable of binding to a bioactive substance as well as to a ligand which is able to bind to a cellular receptor and (2) a ligand (e.g. growth factor, hormone, cytokine) capable of binding to a cellular receptor as well as to the capturing agent. The compn. may be used for providing the rapid clearance of the bioactive substances from the circulation and rapid detection of pathol. conditions. Thus, a monoclonal antibody against tissue plasminogen activator (t-PA) was prepd. with mice and labeled with 111In. A patient with a pronounced edema of the leg was injected with the radiolabeled antibody and 1 h later t-PA; the plasma radioactivity (T2/1) was substantially decreased after t-PA injection, the activity in the

dilated vascular bed diminished, and the biol. background subtraction allowed to detect the location of the thrombus.

SUPPL. TERM: diagnosis antibody ligand system; drug clearance antibody ligand; toxic substance clearance antibody ligand

INDEX TERM: Leukocyte
Lymphocyte
(activated, clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: Animal growth regulators
ROLE: ANST (Analytical study)
(as ligand, in antibody-contg. diagnostic agents)

INDEX TERM: Nervous system agents
(as ligands, in antibody-contg. diagnostic agents)

INDEX TERM: Vitamins
ROLE: ANST (Analytical study)
(as ligands, in antibody-contg. diagnostic agents)

INDEX TERM: Glycosides
ROLE: BIOL (Biological study)
(as ligands, in antibody-contg. diagnostic agents)

INDEX TERM: Hormones
ROLE: BIOL (Biological study)
(as ligands, in antibody-contg. diagnostic agents)

INDEX TERM: Lymphokines and Cytokines
ROLE: BIOL (Biological study)
(as ligands, in antibody-contg. diagnostic agents)

INDEX TERM: Steroids, biological studies
ROLE: BIOL (Biological study)
(as ligands, in antibody-contg. diagnostic agents)

INDEX TERM: Adrenergic agonists
Anticonvulsants and Antiepileptics
Antidepressants
Narcotics
Thrombus and Blood clot
Tranquilizers and Neuroleptics
Venoms
(clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: Alkaloids, biological studies
ROLE: BIOL (Biological study)
(clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: **Agglutinins** and **Lectins**
Avidins
ROLE: ANST (Analytical study)
(complexing agents, in antibody-contg. diagnostic agents)

INDEX TERM: Toxins
ROLE: ANST (Analytical study)
(detoxified, as ligands, in antibody-contg. diagnostic agents)

INDEX TERM: **Radioelements**, uses
ROLE: USES (Uses)
(diagnostic agent labeling with)

INDEX TERM: Antibodies
ROLE: ANST (Analytical study)
(diagnostic agents contg. ligands and)

INDEX TERM: Receptors
ROLE: ANST (Analytical study)
(for ligands, diagnostic agents contg.)

INDEX TERM: Poisons
(fungal, clearance of, from circulation, capturing agent-
and ligand-contg. compns. for)

INDEX TERM: Detoxication

(of drugs and pathogens, antibody- and ligand-contg. compns. for)

INDEX TERM: Diagnosis
(agents, antibody and ligand combinations)

INDEX TERM: Antibodies
ROLE: ANST (Analytical study)
(auto-, clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: **Adhesion**
(bio-, agents for, diagnostic agents contg. antibody and)

INDEX TERM: Carbohydrates and Sugars, compounds
ROLE: ANST (Analytical study)
(conjugates, mannose-terminated, as ligands, in antibody-contg. diagnostic agents)

INDEX TERM: Toxins
ROLE: ANST (Analytical study)
(endo-, clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: Toxins
ROLE: ANST (Analytical study)
(exo-, clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: Trace elements, biological studies
ROLE: ANST (Analytical study)
(heavy metals, clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: Particles
(magnetic, diagnostic agent labeling with)

INDEX TERM: Nucleotides, polymers
ROLE: ANST (Analytical study)
(oligo-, diagnostic agents contg. antibody and)

INDEX TERM: Cations
(paramagnetic, diagnostic agent labeling with)

INDEX TERM: Microorganism
(pathogenic, clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: Lymphocyte
(plasma cell, clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: Antigens
ROLE: ANST (Analytical study)
(tumor-assocd., clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: Collagens, biological studies
ROLE: BIOL (Biological study)
(type III, as ligands, in antibody-contg. diagnostic agents)

INDEX TERM: Adrenergic antagonists
(.beta.-, clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: 7439-97-6, Mercury, biological studies 7440-43-9, Cadmium, biological studies
ROLE: BIOL (Biological study)
(as inorg. poison, clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: 9004-61-9, Hyaluronan 9007-28-7, Chondroitin sulfate 139639-23-9, Tissue plasminogen activator
ROLE: ANST (Analytical study)
(as ligand, in antibody-contg. diagnostic agents)

INDEX TERM: 51-34-3, Scopolamine 54-11-5, Nicotine
ROLE: ANST (Analytical study)
(as org. poison, clearance of, from circulation,

capturing agent- and ligand-contg. compns. for)

INDEX TERM: 50-78-2, Acetylsalicylic acid 300-54-9, Muscarine
7439-92-1, Lead, biological studies 20830-75-5, Digoxin
ROLE: ANST (Analytical study)
(clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: 57-27-2, Morphine, biological studies
ROLE: BIOL (Biological study)
(clearance of, from circulation, capturing agent- and ligand-contg. compns. for)

INDEX TERM: 58-85-5, Biotin
ROLE: ANST (Analytical study)
(complexing agent, in antibody-contg. diagnostic agents)

=> s l14 and (glue or adhesive)

L18 5 L14 AND (GLUE OR ADHESIVE)

=> d iall 1-5

L18 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:505629 CAPLUS
DOCUMENT NUMBER: 131:143619
TITLE: Product and process for membrane and soluble polypeptide segregation
INVENTOR(S): Staehelin, Andrew; Galbraith, David; Giddings, Thomas
PATENT ASSIGNEE(S): The Regents of the University of Colorado, USA
SOURCE: U.S., 27 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.:
MAIN: C12P021-02
SECONDARY: C12N001-100; C12N005-10; C12N015-11
US PATENT CLASSIF.: 435069700
CLASSIFICATION: 16-1 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 3
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5935822	A	19990810	US 1995-407900	19950321

ABSTRACT:
The present invention relates to a novel product and process for segregating desired product mols. within a cell. Aggregate mols. comprising an ***adhesive*** mol. attached to a desired product mol. are sequestered in or in assocn. with a portion of a lipid bilayer in a protective manner. The invention is addnl. directed to methods to nucleic acid mols., recombinant cells, delivery vehicles, secretion systems, assays for identifying proteins capable of assocg. with another protein and biol. sensing systems, such embodiments having a variety of **therapeutic**, diagnostic, biosynthetic prodn., agricultural, bioremediation and forestry uses.

SUPPL. TERM: recombinant protein prodn lipid membrane
INDEX TERM: Proteins, specific or class
ROLE: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(LCHP (light-harvesting complex protein); product and process for membrane and sol. polypeptide segregation)

INDEX TERM: Proteins, specific or class
ROLE: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(M; product and process for membrane and sol. polypeptide segregation)

INDEX TERM: Proteins, specific or class
ROLE: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(coat; product and process for membrane and sol. polypeptide segregation)

INDEX TERM: Cell membrane
Endoplasmic reticulum
Golgi apparatus
Protoplast and Spheroplast
Tobacco
(product and process for membrane and sol. polypeptide segregation)

INDEX TERM: **Agglutinins** and **Lectins**
Avidins
Envelope proteins
Glycophorins
Hemoglobins
Immunoglobulins
ROLE: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(product and process for membrane and sol. polypeptide segregation)

INDEX TERM: Proteins, specific or class
ROLE: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(recombinant; product and process for membrane and sol. polypeptide segregation)

INDEX TERM: Organelle
(vacuole; product and process for membrane and sol. polypeptide segregation)

INDEX TERM: Organelle
(vesicle; product and process for membrane and sol. polypeptide segregation)

INDEX TERM: 37211-66-8, Mannosidase
ROLE: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(2; product and process for membrane and sol. polypeptide segregation)

INDEX TERM: 58-85-5, Biotin 9000-83-3, ATPase 9001-45-0, .beta.-Glucuronidase 9033-07-2, Glycosyltransferase 9035-40-9, Cytochrome b6
ROLE: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(product and process for membrane and sol. polypeptide segregation)

L18 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:552580 CAPLUS
DOCUMENT NUMBER: 125:242490
TITLE: Identification of a heparin-binding hemagglutinin present in mycobacteria
AUTHOR(S): Menozzi, Franco D.; Rouse, Julie H.; Alavi, Mohammad; Laude-Sharp, Marilyn; Muller, Jacqueline; Bischoff, Rainer; Brennan, Michael J.; Locht, Camille
CORPORATE SOURCE: Lab. Microbiol. Genetique Mol., Inst. Natl. Sante Recherche Med. U447, Lille, F-59019, Fr.
SOURCE: J. Exp. Med. (1996), 184(3), 993-1001
CODEN: JEMEAV; ISSN: 0022-1007
DOCUMENT TYPE: Journal
LANGUAGE: English

CLASSIFICATION: 10-1 (Microbial, Algal, and Fungal Biochemistry)
Section cross-reference(s): 14, 15

ABSTRACT:
Adherence to mammalian host tissues is an important virulence trait in microbial pathogenesis, yet little is known about the adherence mechanisms of mycobacteria. Here, we show that binding of mycobacteria to epithelial cells but not to macrophages can be specifically inhibited by sulfated carbohydrates.
Using heparin-Sepharose chromatog., a 28-kD heparin-binding protein was purified from culture supernatants and cell exts. of Mycobacterium bovis and Mycobacterium tuberculosis. This protein, designated heparin-binding hemagglutinin (HBHA), promotes the agglutination of rabbit erythrocytes, which is specifically inhibited by sulfated carbohydrates. HBHA also induces mycobacterial aggregation, suggesting that it can mediate bacteria-bacteria interactions as well. Hemagglutination, mycobacterial aggregation, as well as attachment to epithelial cells are specifically inhibited in the presence of anti-HBHA antibodies. Immunoelectron microscopy using anti-HBHA monoclonal antibodies revealed that the protein is surface exposed, consistent with a role
in adherence. Immunoblot anal. using antigen-specific antibodies indicated that HBHA is different from the fibronectin-binding proteins of the antigen 85 complex and p55, and comparison of the NH2-terminal amino acid sequence of purified HBHA with the protein sequence data bases did not reveal any significant similarity with other known proteins. Sera from tuberculosis patients but not from healthy individuals were found to recognize HBHA, indicating its immunogenicity in humans during mycobacterial infections. Identification of putative mycobacterial **adhesins**, such as the one described in this report, may provide the basis for the development of new ***therapeutic*** and prophylactic strategies against mycobacterial diseases.

SUPPL. TERM: mycobacteria epithelium **adhesion** heparin binding hemagglutinin; tuberculosis antibody heparin binding hemagglutinin mycobacteria

INDEX TERM: Protein sequences
(N-terminal; of heparin-binding hemagglutinin of mycobacteria)

INDEX TERM: Epithelium
Hemagglutination
Microbial virulence
Mycobacterium bovis
Mycobacterium tuberculosis
Tuberculosis
(identification and **adhesive** activity of heparin-binding hemagglutinin of mycobacteria)

INDEX TERM: Immunoglobulins
ROLE: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)
(to heparin-binding hemagglutinin of mycobacteria in blood serum of tuberculosis patients)

INDEX TERM: **Adhesion**
(bio-, identification and **adhesive** activity of heparin-binding hemagglutinin of mycobacteria)

INDEX TERM: **Adhesion**
(bio-, self-, identification and **adhesive** activity of heparin-binding hemagglutinin of mycobacteria)

INDEX TERM: **Agglutinins** and **Lectins**
ROLE: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BPR (Biological process); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process)
(hemagglutinins, identification and **adhesive** activity of heparin-binding hemagglutinin of

mycobacteria)

L18 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:544101 CAPLUS
DOCUMENT NUMBER: 125:177462
TITLE: Surface-modified nanoparticles and method of making and using them
INVENTOR(S): Levy, Robert J.; Labhasetwar, Vinod; Song, Cunxian S.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 170 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
INT. PATENT CLASSIF.: A61K009-51
CLASSIFICATION: 63-6 (Pharmaceuticals)
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9620698	A2	19960711	WO 1996-US476	19960104
WO 9620698	A3	19980122		
W: AL, AM, AT, AU, CA, CH, CN, CZ, DE, DK, GB, HU, IS, JP, KE, LU, VN, MN, NO, US				
RW: KE, LS, SD, AT, BE, CH, DE, ES, FR, GB, IT, LU, NL, PT, SE, NL, MR, NE, SN				
CA 2207961	AA	19960711	CA 1996-2207961	19960104
AU 9647556	A1	19960724	AU 1996-47556	19960104
EP 805678	A1	19971112	EP 1996-903476	19960104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
JP 10511957	T2	19981117	JP 1996-521279	19960104
PRIORITY APPLN. INFO.:			US 1995-369541	19950105
			US 1995-389893	19950216
			WO 1996-US476	19960104

ABSTRACT:
Biodegradable controlled-release nanoparticles as sustained release bioactive agent delivery vehicles include surface modifying agents to target binding of the nanoparticles to tissues or cells of living systems, to enhance nanoparticle sustained release properties, and to protect nanoparticle-incorporated bioactive agents. Unique methods of making small (10 nm to 15 nm, and preferably 20 nm to 35 nm) nanoparticles having a narrow size distribution which can be surface-modified after the nanoparticles are formed is described. Techniques for modifying the surface include a lyophilization technique to produce a phys. adsorbed coating and epoxy-derivatization to functionalize the surface of the nanoparticles to covalently bind mols. of interest. The nanoparticles may also comprise hydroxy-terminated or epoxide-terminated and/or activated multiblock copolymers, having hydrophobic segments which may be polycaprolactone and hydrophilic segments. The nanoparticles are useful for local intravascular administration of smooth muscle inhibitors and antithrombogenic agents as part of interventional cardiac or vascular catheterization such as a balloon angioplasty procedure; direct application to tissues and/or cells for gene therapy, such as the delivery of osteotropic genes or gene segments into bone progenitor cells; or oral administration in an enteric capsule for delivery of protein/peptide based vaccines.

SUPPL. TERM: polymer controlled release nanoparticle drug delivery; gene therapy vaccine controlled release nanoparticle
INDEX TERM: Animal growth regulators
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)

(antagonists; surface-modified polymer controlled-release
nanoparticles for sustained drug delivery)

INDEX TERM: Fibrins
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**glue**, suspending medium; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Cardiovascular agents
(inhibitors and stimulators; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Animal tissue culture
(media; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Polymerization catalysts
(photoinitiation; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Buffer substances and systems
(physiol., suspending medium; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Alkylating agents, biological
Antibiotics
Anticoagulants and Antithrombotics
Emulsifying agents
Encapsulation
Freeze drying
Immunosuppressants
Inflammation inhibitors
Neoplasm inhibitors
Sound and Ultrasound
Surfactants
Thrombolytics
Vaccines
(surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: **Agglutinins** and **Lectins**
Antibodies
Beeswax
Biopolymers
Ferritins
Fibrinogens
Hemoglobins
Myoglobins
Phosphatidylethanolamines
Waxes and Waxy substances
Wool wax
Caseins, biological studies
Fatty acids, biological studies
Glycerides, biological studies
Lipids, biological studies
Phospholipids, biological studies
Polysaccharides, biological studies
Silicates, biological studies
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Antigens
Deoxyribonucleic acids
Enzymes

Gene, animal
Hormones
Nucleic acids
Osteocalcins
Phosphazene polymers
Phosphoproteins
Polyanhydrides
Ribonucleic acids
Toxins
Urethane polymers
Albumins, biological studies
Alkaloids, biological studies
Gelatins, biological studies
Glycoproteins, biological studies
Polyesters, biological studies
Polyethers, biological studies
Quaternary ammonium compounds, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Polymers, biological studies
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(surface-modifying agents; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Blood serum
Physiological saline solutions
(suspending medium; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Peptides, biological studies
Proteins, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vaccines based on; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Sialoglycoproteins
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(BSP II (bone sialoglycoprotein II), surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Dental materials and appliances
(**adhesives**, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Quaternary ammonium compounds
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(alkylbenzyldimethyl, chlorides, surface-modified polymer
controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Artery
(angioplasty, surface-modified polymer controlled-release
nanoparticles for sustained drug delivery)

INDEX TERM: Surfactants
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)
(anionic, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Gene, animal
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-onco-, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Animal growth regulators
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(blood platelet-derived growth factors, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Medical goods
(bone cements, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Animal growth regulators
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bone morphogenetic proteins, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Ion channel blockers
(calcium, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Surfactants
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(cationic, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Quaternary ammonium compounds, uses
ROLE: CAT (Catalyst use); USES (Uses)
(complexes, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Alcohols, biological studies
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(fatty, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Fats and Glyceridic oils
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fish, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: **Therapeutics**
(geno-, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Gels
(hydro-, suspending medium; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Lymphokines and Cytokines
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interleukin 1.alpha., surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Lymphokines and Cytokines
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interleukin 1.beta., surface-modified polymer

controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Lymphokines and Cytokines
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(interleukin 6, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Trace elements, uses
ROLE: CAT (Catalyst use); USES (Uses)
(metals, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Antibodies
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(monoclonal, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Pharmaceutical dosage forms
(nanoparticles, controlled-release, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Surfactants
(nonionic, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Nucleotides, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oligo-, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Polymers
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(oligomers, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Gene, animal
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(onco-, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Polyethers, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ortho ester group-contg., surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Glycophosphoproteins
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(osteonectins, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Glycophosphoproteins
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(osteopontins, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Bone marrow
(osteoprogenitor cell, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Polyamides, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES

(Uses)
(poly(amino acids), surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Fatty acids, biological studies
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(potassium salts, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Collagens, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pro-, suspending medium; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Sterilization and Disinfection
(radiochem., surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Heart, disease
(restenosis, prevention of; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Soaps
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(rosin, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Fatty acids, biological studies
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(sodium salts, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Oils
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(sulfonated, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Amines, uses
ROLE: CAT (Catalyst use); USES (Uses)
(tertiary, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Toxoids
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tetanus, vaccines based on; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Animal growth regulators
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(transforming growth factors, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Lymphokines and Cytokines
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tumor necrosis factor-.alpha., surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Collagens, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(type I, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Collagens, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(type II, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: Proteins, specific or class
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(vitamin K-dependent, surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: 62229-50-9, Epidermal growth factor
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(heparin-binding, -like compds.; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: 9015-82-1, Angiotensin-converting enzyme 9026-43-1, Protein kinase
ROLE: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: 180741-23-5DP, reaction products with heparin
ROLE: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(repeating units; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: 67-64-1, 2-Propanone, biological studies 67-66-3, Chloroform, biological studies 67-68-5, Dimethylsulfoxide, biological studies 68-12-2, Dimethylformamide, biological studies 75-09-2, Methylene chloride, biological studies 109-99-9, biological studies 123-91-1, Dioxane, biological studies 127-19-5, Dimethylacetamide 141-78-6, Ethyl acetate, biological studies 684-16-2, Hexafluoroacetone 920-66-1
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(solvent; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: 75-23-0 75-47-8, Iodoform 102-54-5, Ferrocene 113-00-8, Guanidine 288-32-4, Imidazole, uses 558-13-4, Carbon tetrabromide 7550-45-0, Titanium tetrachloride, uses 7637-07-2D, Boron trifluoride, adducts 13598-36-2D, Phosphonic acid, alkylidenebis- derivs. 13826-88-5, Zinc tetrafluoroborate 86665-14-7, Zirconocene chloride
ROLE: CAT (Catalyst use); USES (Uses)
(surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: 50-70-4, D-Glucitol, biological studies 57-09-0, Cetyl trimethyl ammonium bromide 57-10-3, Hexadecanoic acid, biological studies 57-88-5, Cholesterol, biological studies 69-65-8, D-Mannitol 102-71-6, Triethanolamine,

biological studies 112-02-7, Hexadecyl trimethyl ammonium chloride 151-21-3, Sodium dodecyl sulfate, biological studies 577-11-7, Sodium dioctyl sulfosuccinate 1069-55-2, Isobutyl cyanoacrylate 3282-73-3, Didodecyldimethyl ammonium bromide 7445-62-7 7727-43-7, Barium sulfate 8007-43-0, Sorbitan sesquioleate 9000-65-1, Tragacanth 9000-69-5, Pectin 9002-89-5, Polyvinyl alcohol 9002-92-0, Polyoxyethylene lauryl ether 9003-39-8, Polyvinyl pyrrolidone 9003-53-6, Polystyrene 9004-32-4 9004-34-6, Cellulose, biological studies 9004-35-7, Cellulose acetate 9004-44-8, Cellulose phthalate 9004-64-2, Hydroxypropyl cellulose 9004-99-3 9005-49-6, Heparin, biological studies 9015-73-0 9050-04-8, CM-cellulose calcium 9050-31-1, Hydroxypropyl methyl cellulose phthalate 10103-46-5, Calcium phosphate 25322-68-3 106392-12-5, Poloxamer 110617-70-4 128835-92-7 180741-27-9
ROLE: MOA (Modifier or additive use); THU (Therapeutic use);
BIOL (Biological study); USES (Uses)
(surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: 25722-70-7P
ROLE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: 9005-49-6DP, Heparin, reaction products with epoxide end-capped polymer 180741-24-6P 180741-25-7P 180741-26-8P 180801-36-9P 180801-37-0P 180801-38-1P
ROLE: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: 50-02-2, Dexamethasone 59-52-9 60-00-4, EDTA, biological studies 60-10-6, Dithizone 77-86-1 77-92-9, biological studies 87-69-4, biological studies 92-84-2D, Phenothiazine, derivs. 102-71-6D, Triethanolamine, fatty acid esters 139-13-9 144-62-7, Ethanedioic acid, biological studies 1306-06-5, Hydroxyapatite 1338-39-2, Span 20 2462-63-7 9000-01-5, Acacia gum 9003-05-8, Polyacrylamide 9004-54-0, Dextran, biological studies 9005-25-8, Starch, biological studies 9005-32-7, Alginic acid 9012-76-4, Chitosan 10102-43-9D, Nitric oxide, compds. 11128-99-7, Angiotensin II 14930-96-2, Cytochalasin B 61912-98-9, Insulin-like growth factor 81845-44-5, Ciprostene 106096-92-8, Acidic fibroblast growth factor 106096-93-9, Basic fibroblast growth factor 114949-22-3, Activin 122647-31-8, Ibutilide 130736-65-1, U 86983
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

INDEX TERM: 7732-18-5, Water, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(suspending medium; surface-modified polymer controlled-release nanoparticles for sustained drug delivery)

L18 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1996:523184 CAPLUS
DOCUMENT NUMBER: 125:211991
TITLE: Inhibition of human HT-29 colon carcinoma cell **adhesion** by a 4-fluoro-glucosamine analog
AUTHOR(S): Woynarowska, Barbara; Dimitroff, Charles J.; Sharma, Moshewar; Matta, Khushi L.; Bernacki, Ralph J.
CORPORATE SOURCE: Dep. Experimental Therapeutics, Roswell Park Cancer Inst., Buffalo, NY, 14263, USA
SOURCE: Glycoconjugate J. (1996), 13(4), 663-674
CODEN: GLJOEW; ISSN: 0282-0080
DOCUMENT TYPE: Journal
LANGUAGE: English
CLASSIFICATION: 1-6 (Pharmacology)
Section cross-reference(s): 6, 13, 14

ABSTRACT:
Cell surface glycoconjugates play an important role in cellular recognition and
adhesion . Modification of these structures in tumor cell could affect tumor cell growth and behavior, including metastasis. 2-Acetamido-1,3,6-tri-O-acetyl-4-deoxy-4-fluoro-.alpha.-D-glycopyranose-.alpha.-D-glycopyranose (4-F-GlcNAc) was synthesized as a potential inhibitor and/or modifier of tumor cell glycoconjugates. The effect of this sugar analog on the **adhesive** properties of human colon carcinoma HT-29 cells was evaluated. Treatment of HT-29 cells with 4-F-GlcNAc led to reduced cell surface expression of terminal lactosaminase, sialyl-Lex and sialyl-Lea, as detd. by Western blotting and flow
cytometry. The aberrant expression of these oligosaccharide structures on the HT-29 cell surface resulted in: (1) decreased E-selectin mediated
adhesion of human colon cells to human umbilical cord endothelial cells
(HUVEC); (2) impaired **adhesion** of HT-29 cells to .beta.-galactoside binding lectin, galectin-1; and (3) reduced ability to form homotypic aggregates. After exposure to 4-F-GlcNAc, lysosomal assocd. membrane protein (lamp) 1 and 2, and carcinoembryonic antigen (CEA) detected in HT-29 cells were
of lower mol. wt., probably due to impaired glycosylation. These results strongly suggest that modification of tumor cell surface mols. can alter tumor cell **adhesion** and that tumor cell surface oligosaccharides may be suitable targets for **therapeutic** exploitation.

SUPPL. TERM: fluoro glucosamine inhibition colon carcinoma **adhesion**
INDEX TERM: Glycosidation
Neoplasm inhibitors
(inhibition of human HT-29 colon carcinoma cell **adhesion** by a 4-fluoro-glucosamine analog)
INDEX TERM: Antigens
ROLE: BOC (Biological occurrence); BPR (Biological process);
BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(CEA (carcinoembryonic antigen), inhibition of human HT-29 colon carcinoma cell **adhesion** by a 4-fluoro-glucosamine analog)
INDEX TERM: Glycophosphoproteins
ROLE: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(E-selectins, inhibition of human HT-29 colon carcinoma cell **adhesion** by a 4-fluoro-glucosamine analog)
INDEX TERM: Animal cell line
(HT-29, inhibition of human HT-29 colon carcinoma cell **adhesion** by a 4-fluoro-glucosamine analog)
INDEX TERM: Sialoglycoproteins
ROLE: BOC (Biological occurrence); BPR (Biological process);

INT. PATENT CLASSIF.:
MAIN: C12N015-28
SECONDARY: C07K015-00; A61K037-02; A61K039-395; C12N005-10; C12P021-02
CLASSIFICATION: 15-5 (Immunochemistry)
Section cross-reference(s): 1
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9418325	A1	19940818	WO 1994-EP286	19940202
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2155103	AA	19940818	CA 1994-2155103	19940202
AU 9460010	A1	19940829	AU 1994-60010	19940202
EP 682705	A1	19951122	EP 1994-906194	19940202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US 5891679	A	19990406	US 1995-500860	19950915
PRIORITY APPLN. INFO.:			EP 1993-400262	19930203
			WO 1994-EP286	19940202

ABSTRACT:
Analogs of tumor necrosis factor .alpha. (TNF.alpha.) with amino acid substitutions or deletions (or both) in amino acids 101-116 are prepd. These substitutions lead to changes in properties such as the lectin-like activity, toxic side-effects, inflammatory cytokine induction. The substitutions also lead to an increase in the half-life of the mol. Genes for a series of analogs
of the mouse TNF.alpha. were constructed and expressed in Escherichia coli. Synthetic peptides derived from this region were found to play a role in the lectin binding and trypanocidal activity of TNF.alpha.. Antibodies to this peptide inhibited the trypanocidal activity of TNF.alpha. but not its tumoricidal activity. The analogs were less toxic than wild-type TNF.alpha. and had a longer serum half-life (30-60 mins vs. 15 mins for the wild type).

SUPPL. TERM: tumor necrosis factor alpha analog; TNFalpha analog
therapeutic

INDEX TERM: Lymphokines and Cytokines
ROLE: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(analogs of tumor necrosis factor .alpha. affecting induction of inflammatory; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Neoplasm inhibitors
Trypanosomicides
(analogs of tumor necrosis factor .alpha. as; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Gene, animal
ROLE: PREP (Preparation)
(cDNA, for tumor necrosis factor .alpha.; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Deoxyribonucleic acid sequences
(of plasmid pIG2)

INDEX TERM: Plasmid and Episome
(pIG2mTNF series, gene for analogs of mouse tumor necrosis factor analogs on; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Drug bioavailability
(serum half-life of tumor necrosis factor .alpha.

analogs; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Antibodies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(to tumor necrosis factor .alpha. tip region; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Acquired immune deficiency syndrome
Cachexia
Immunosuppression
Infection
Respiratory distress syndrome
Sepsis and Septicemia
(treatment of; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: **Agglutinins** and **Lectins**
ROLE: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(tumor necrosis factor .alpha. as, mutations affecting; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Proteins, specific or class
ROLE: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**adhesive**, analogs of tumor necrosis factor .alpha. affecting induction of; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Peptides, biological studies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antisense, to tumor necrosis factor .alpha. tip region; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Newborn
(disorder, respiratory distress syndrome, treatment of; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Shock
(endotoxin, treatment of; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Lung, disease
(fibrosis, treatment of; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Transplant and Transplantation
(graft-vs.-host reaction, treatment of; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Heart, disease
(ischemia, treatment of; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn.

for pharmaceuticals)

INDEX TERM: Brain, disease
(malaria, treatment of; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Neoplasm
(metastasis, analogs of tumor necrosis factor .alpha. affecting induction of; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Antibodies
ROLE: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(monoclonal, to tumor necrosis factor .alpha. tip region; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Perfusion
(re-, injury, treatment of; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Shock
(toxic shock syndrome, treatment of; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: Lymphokines and Cytokines
ROLE: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(tumor necrosis factor-.alpha., prepn. of amino acid-substituted analogs; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: 159233-69-9 159233-70-2 159233-71-3 159233-72-4 159233-73-5 159233-74-6 159233-75-7 159233-76-8 159233-77-9
ROLE: BOC (Biological occurrence); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(amino acid sequence; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: 158727-15-2P, Biotinylated tumor necrosis factor .alpha. tip region analog (synthetic) 158727-16-3P, Biotinylated tumor necrosis factor .alpha. tip region analog (synthetic) 158727-17-4P, Biotinylated tumor necrosis factor .alpha. tip region analog (synthetic) 158727-18-5P, Biotinylated tumor necrosis factor .alpha. tip region analog (synthetic) 158727-19-6P, Biotinylated tumor necrosis factor .alpha. tip region analog (synthetic) 158727-20-9P, Biotinylated tumor necrosis factor .alpha. tip region analog (synthetic) 158727-21-0P, Biotinylated tumor necrosis factor .alpha. tip region analog (synthetic) 158727-22-1P, Biotinylated tumor necrosis factor .alpha. tip region analog (synthetic) 158727-23-2P, Biotinylated tumor necrosis factor .alpha. tip

region analog (synthetic) 158727-24-3P, Biotinylated tumor necrosis factor .alpha. tip region analog (synthetic) 158800-77-2P, Biotinylated tumor necrosis factor .alpha. tip region analog (synthetic)
ROLE: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: 94948-61-5D, Tumor necrosis factor .alpha. (human), amino acid substitution and deletion analogs 159233-68-8D, amino acid substitution and deletion analogs
ROLE: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

INDEX TERM: 159233-78-0
ROLE: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(nucleotide sequence, expression vector; analogs of tumor necrosis factor .alpha. with fewer toxic side effects and their prepn. for pharmaceuticals)

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